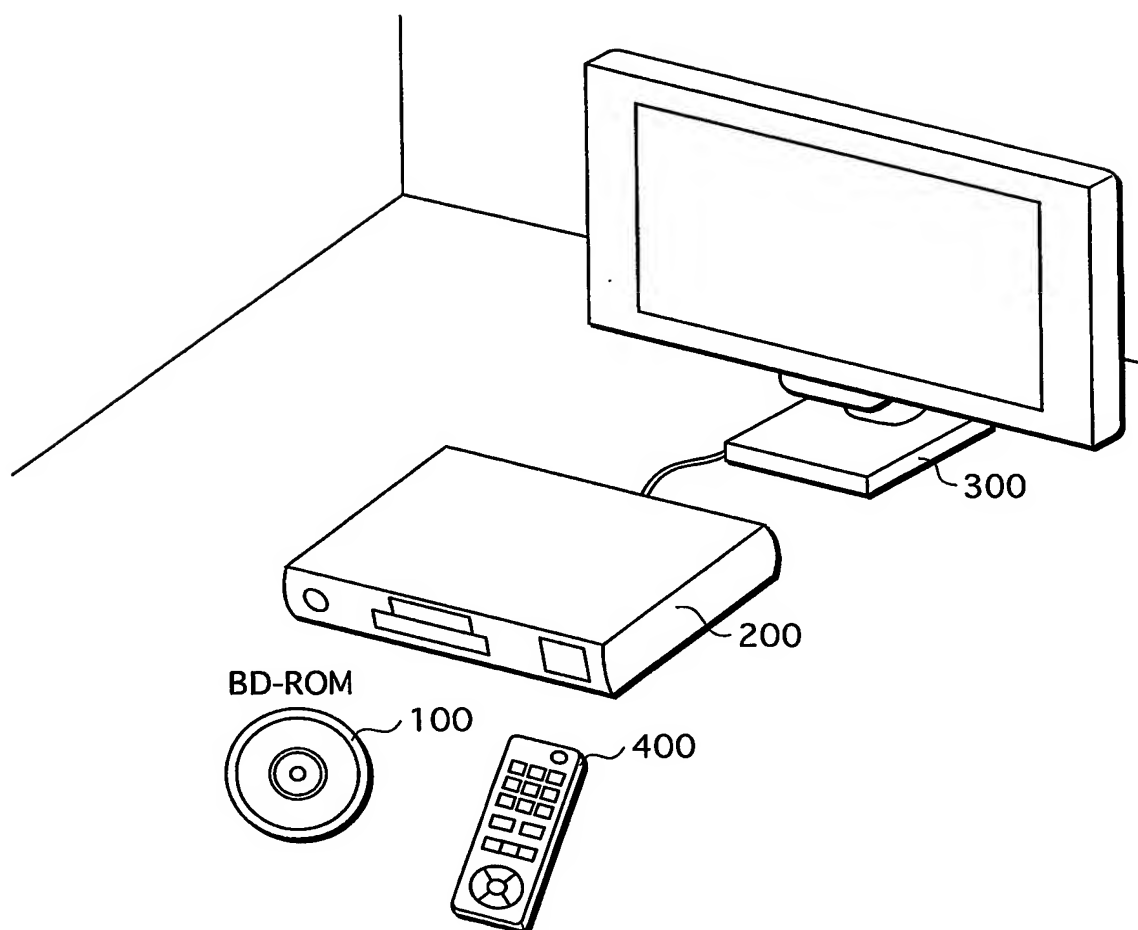
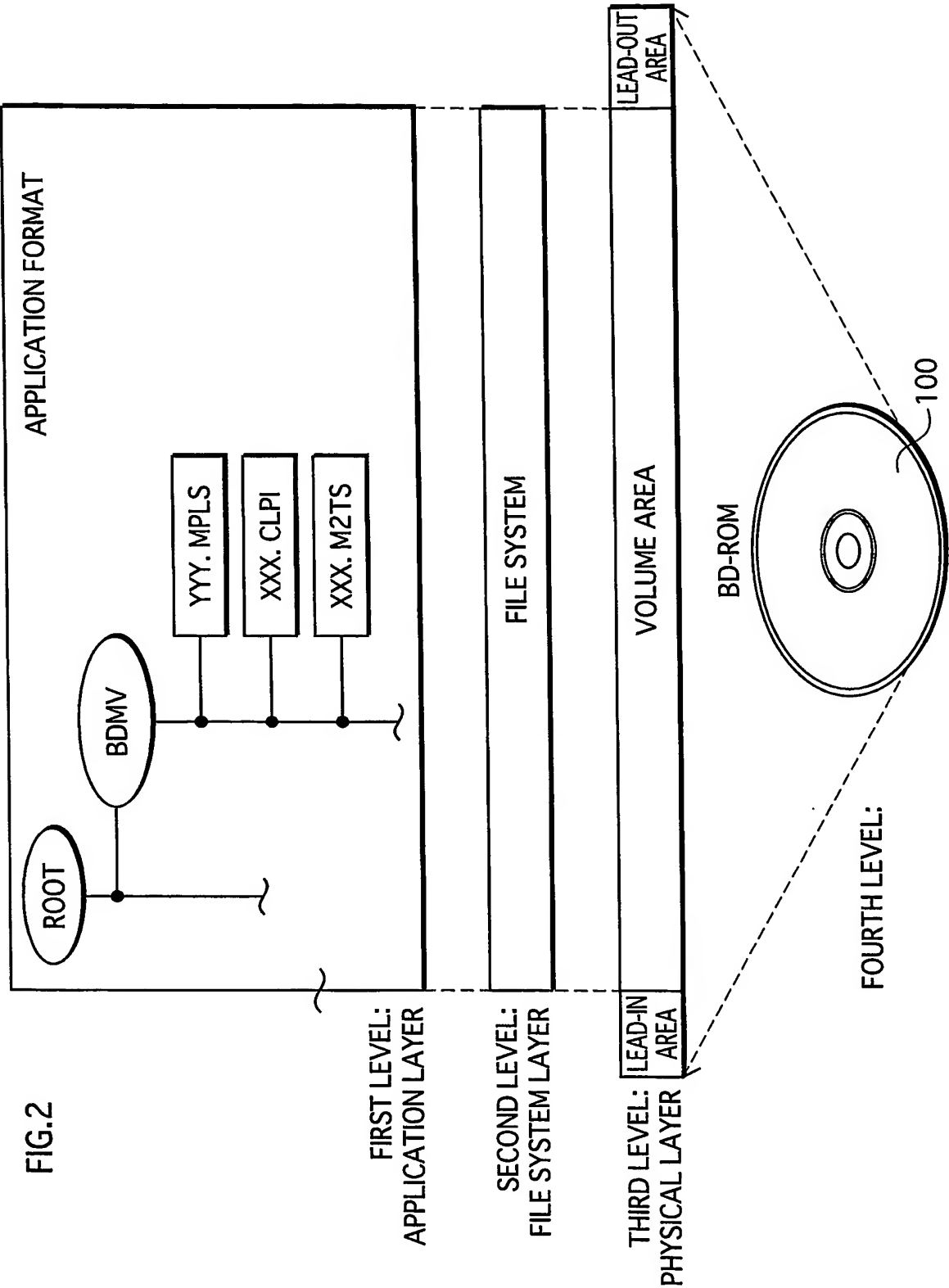
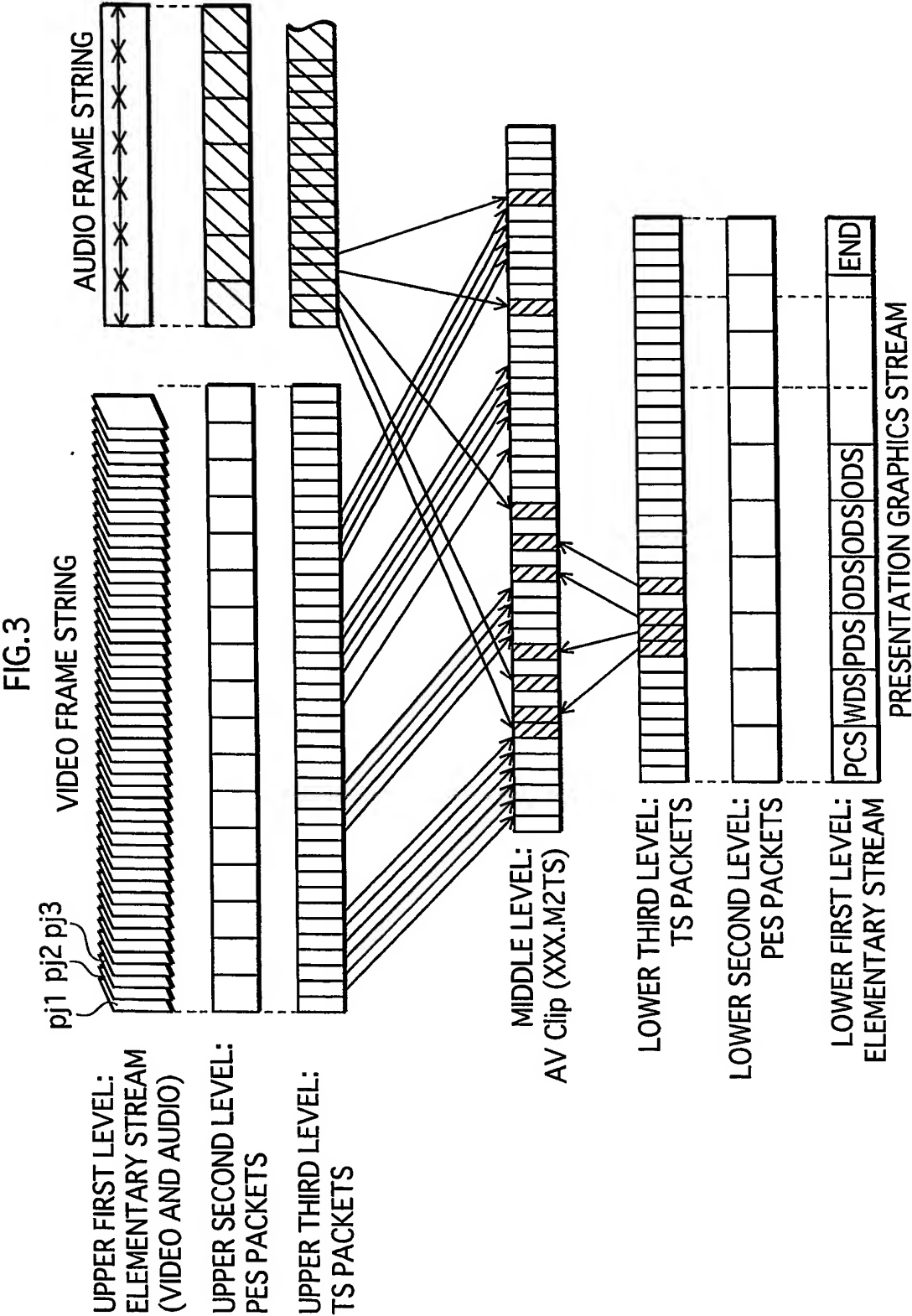


FIG.1







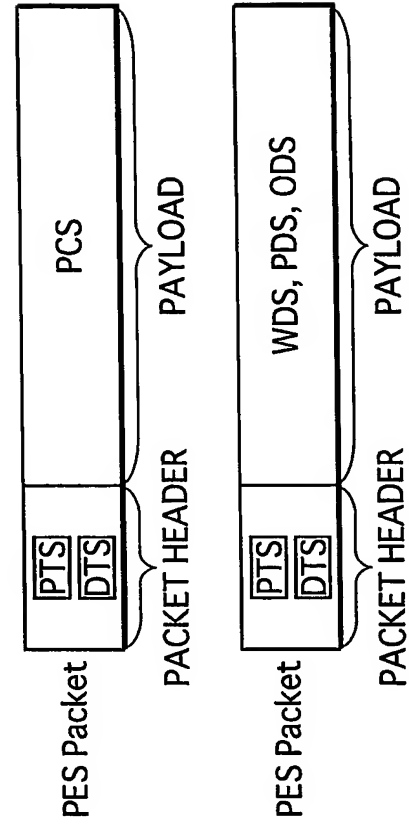
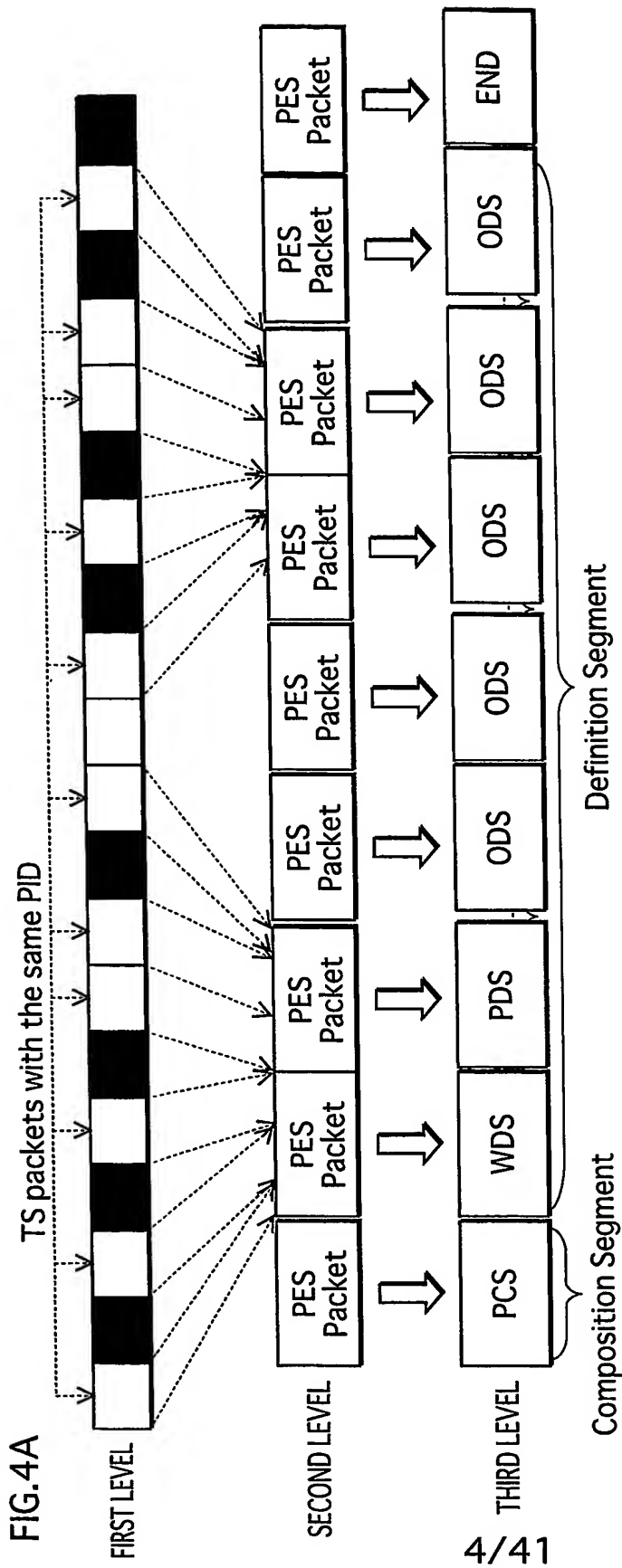


FIG.5

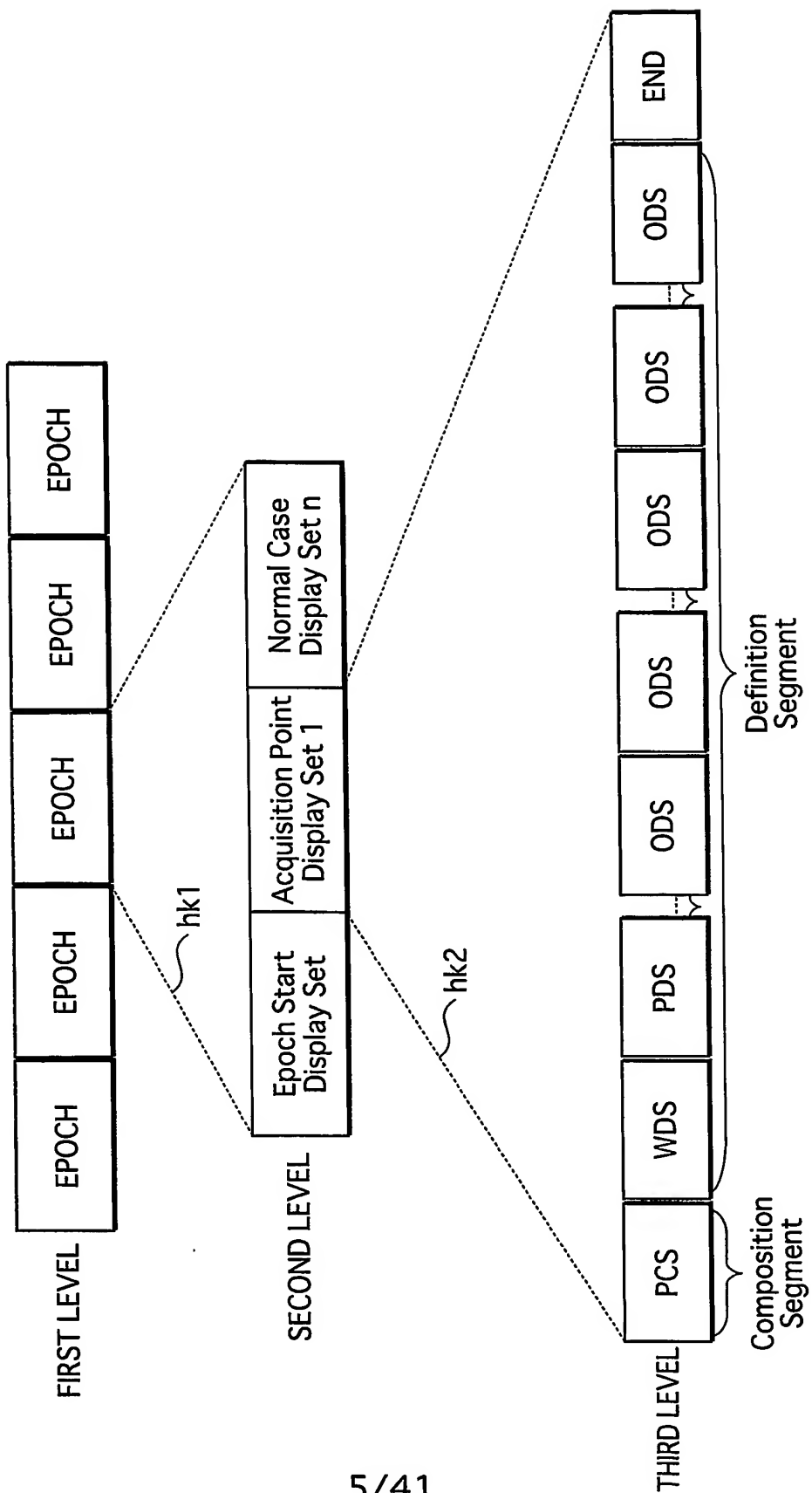


FIG.6

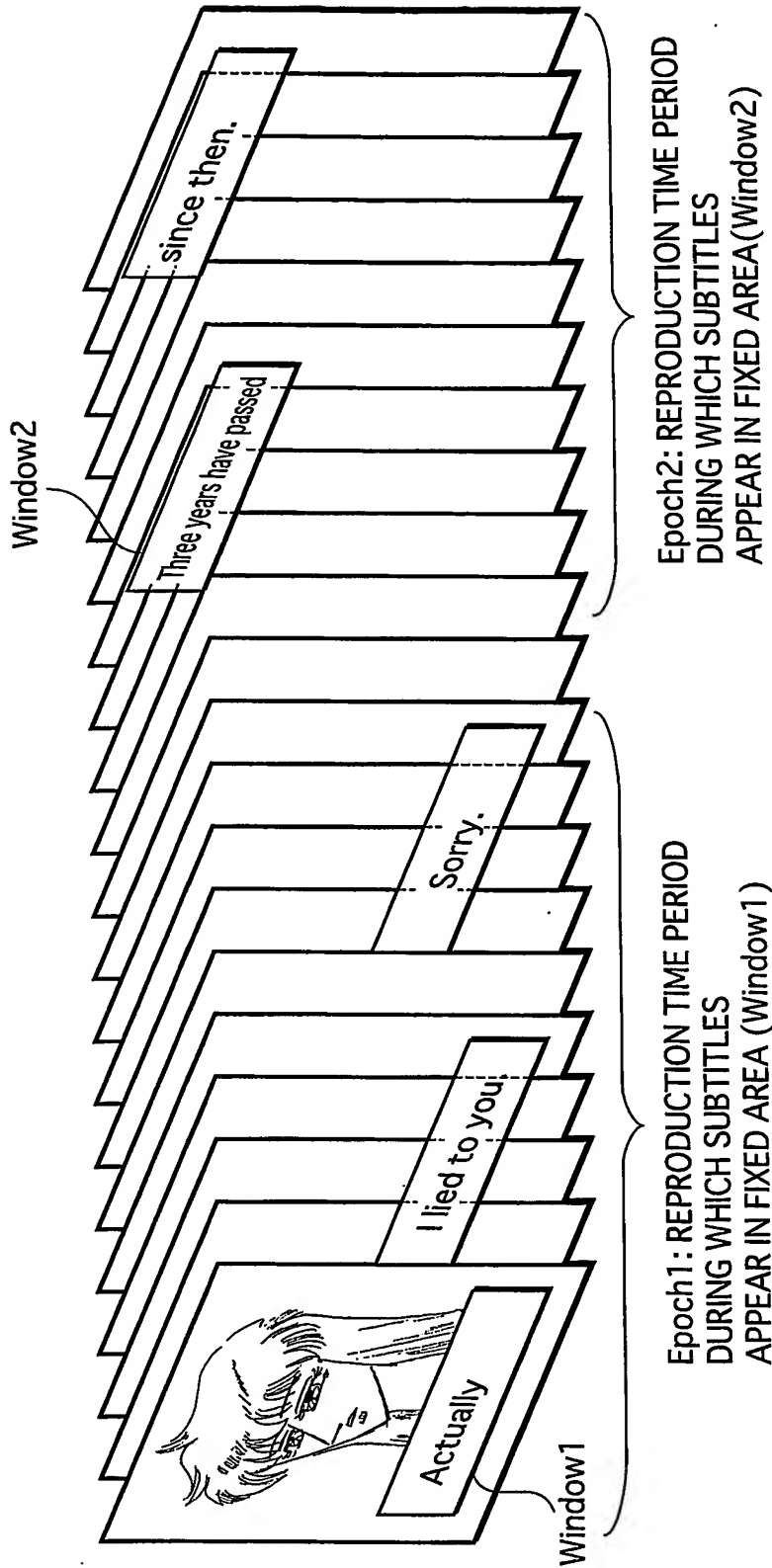


FIG.7A

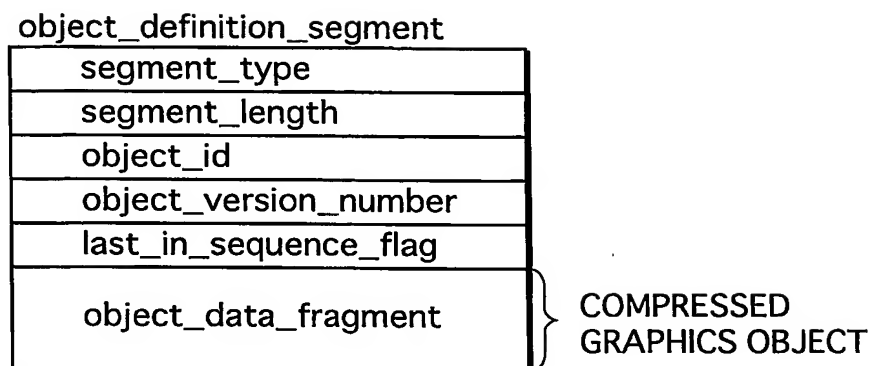


FIG.7B

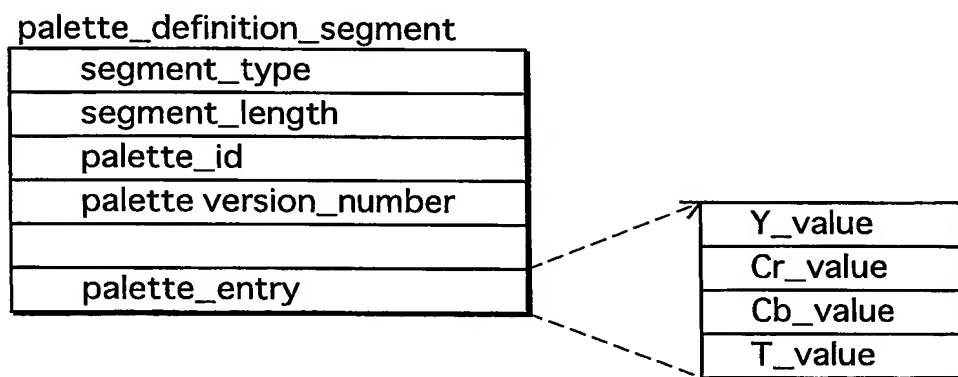
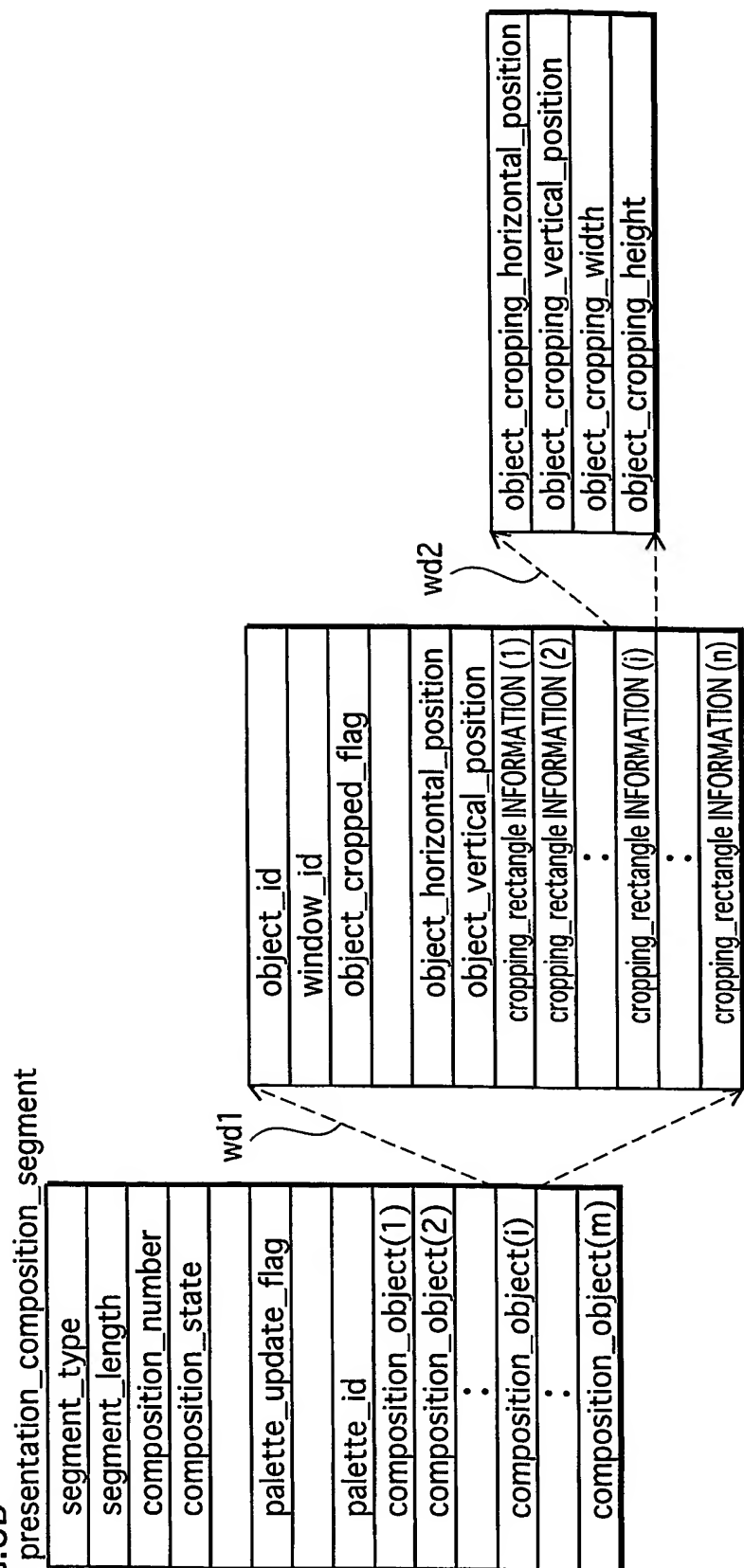


FIG.8A



FIG.8B





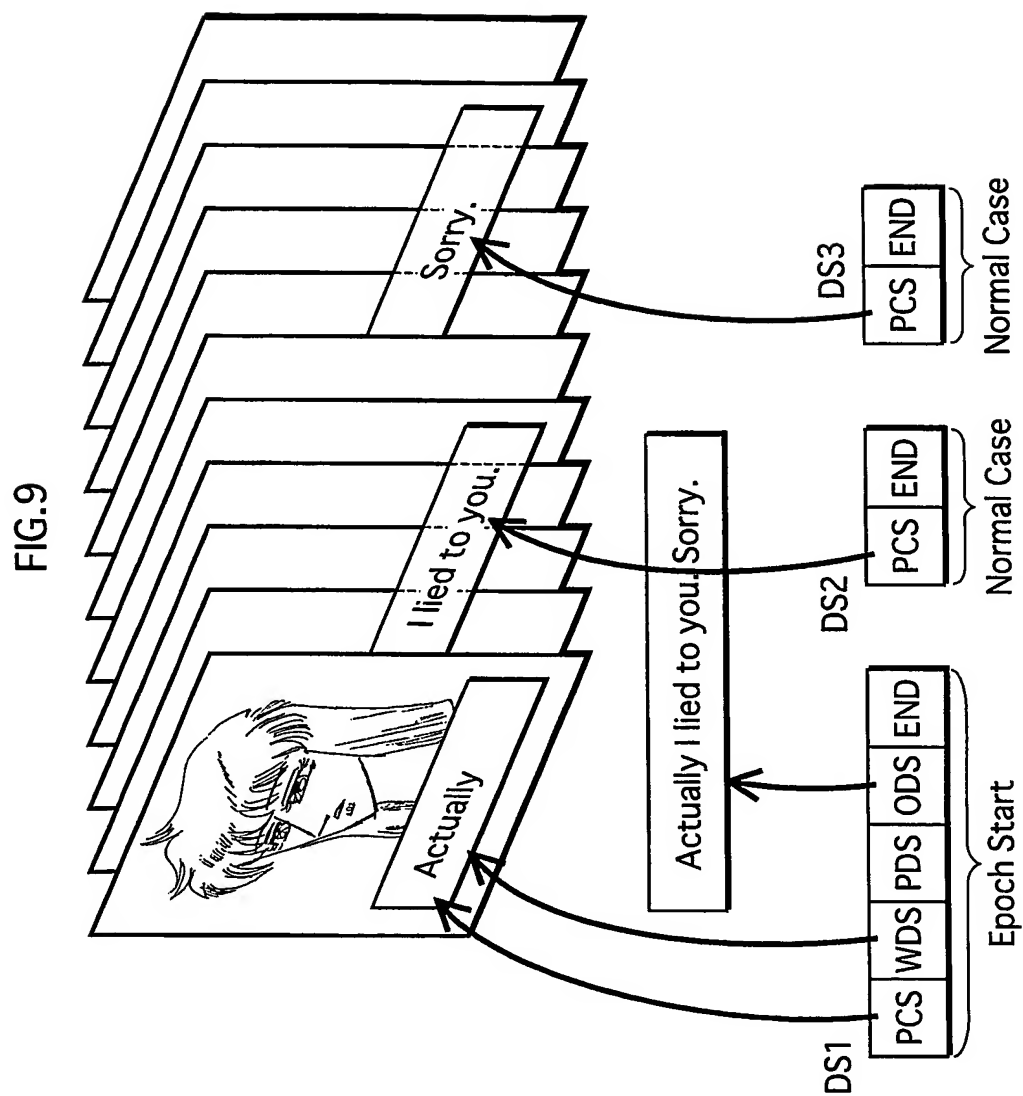


FIG.10

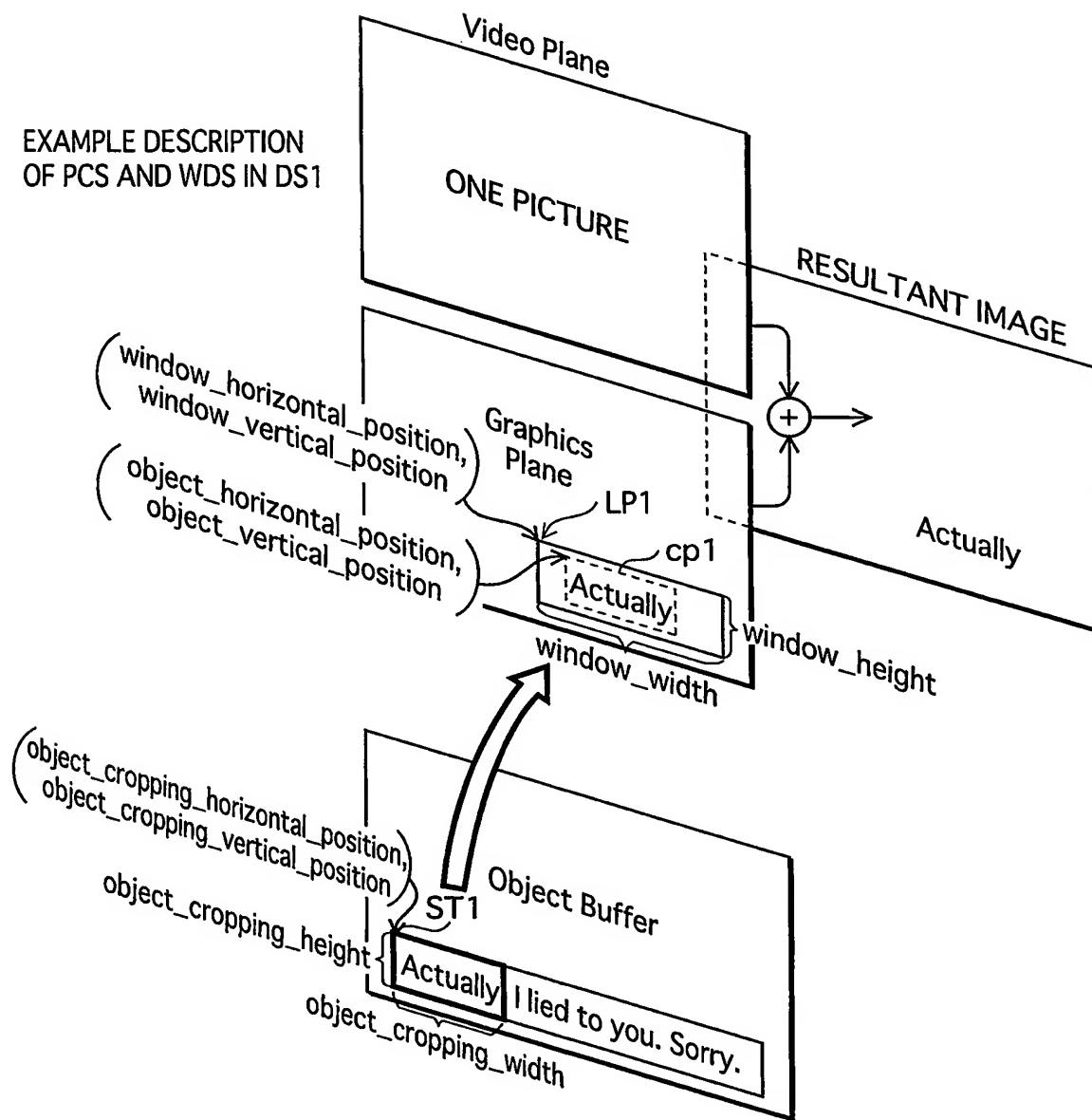
EXAMPLE DESCRIPTION  
OF PCS AND WDS IN DS1

FIG. 11

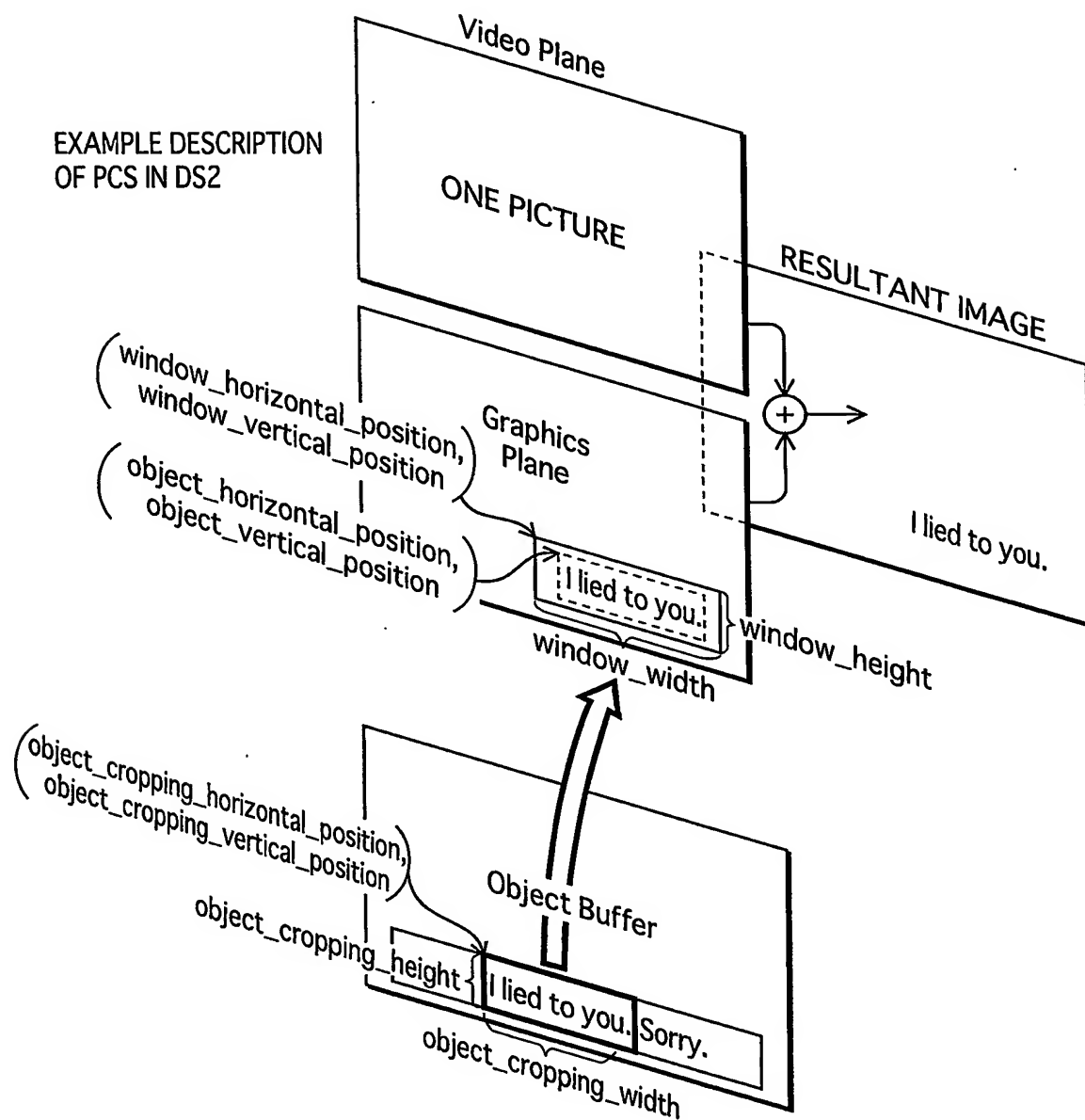
EXAMPLE DESCRIPTION  
OF PCS IN DS2

FIG. 12

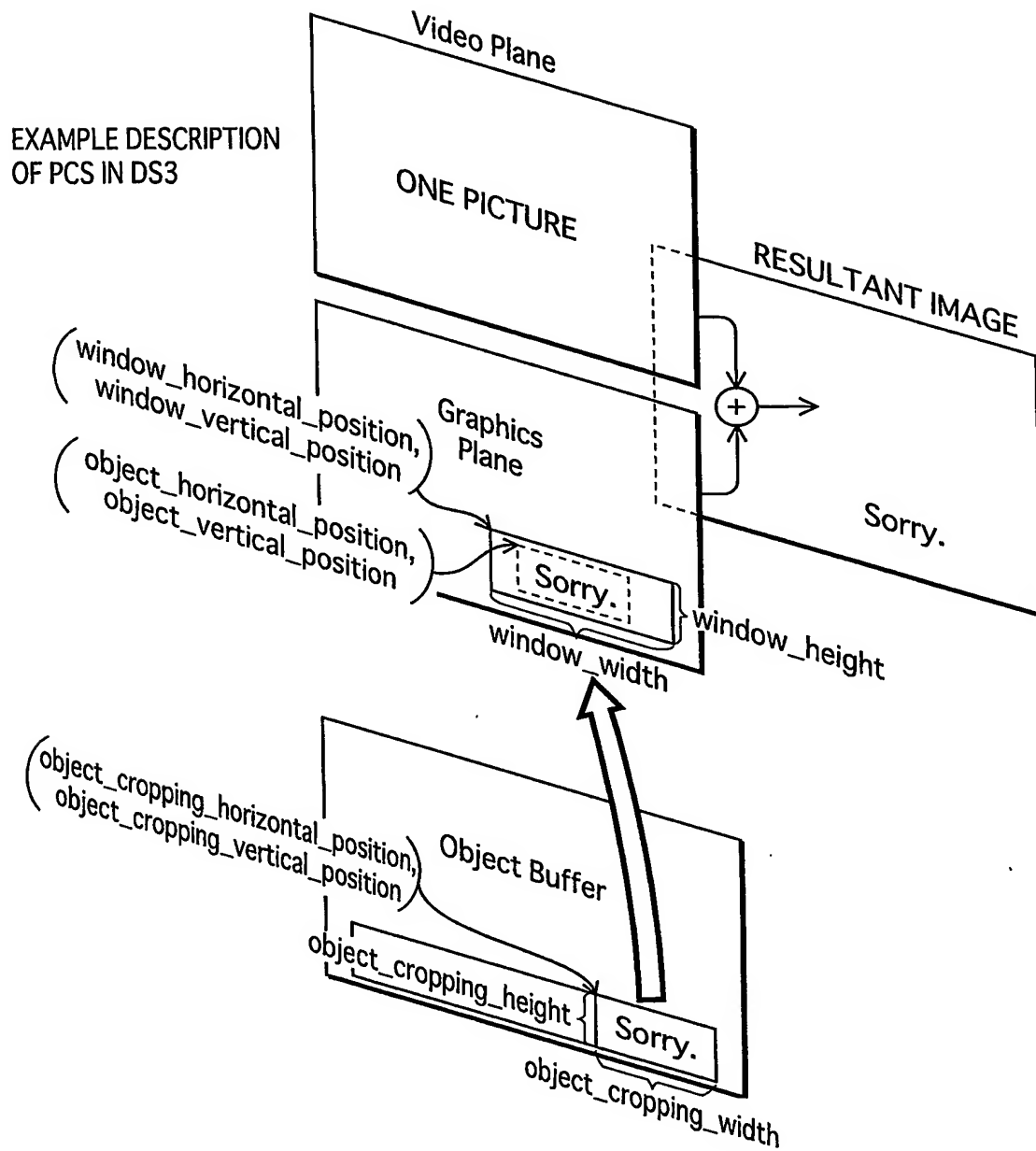


FIG.13

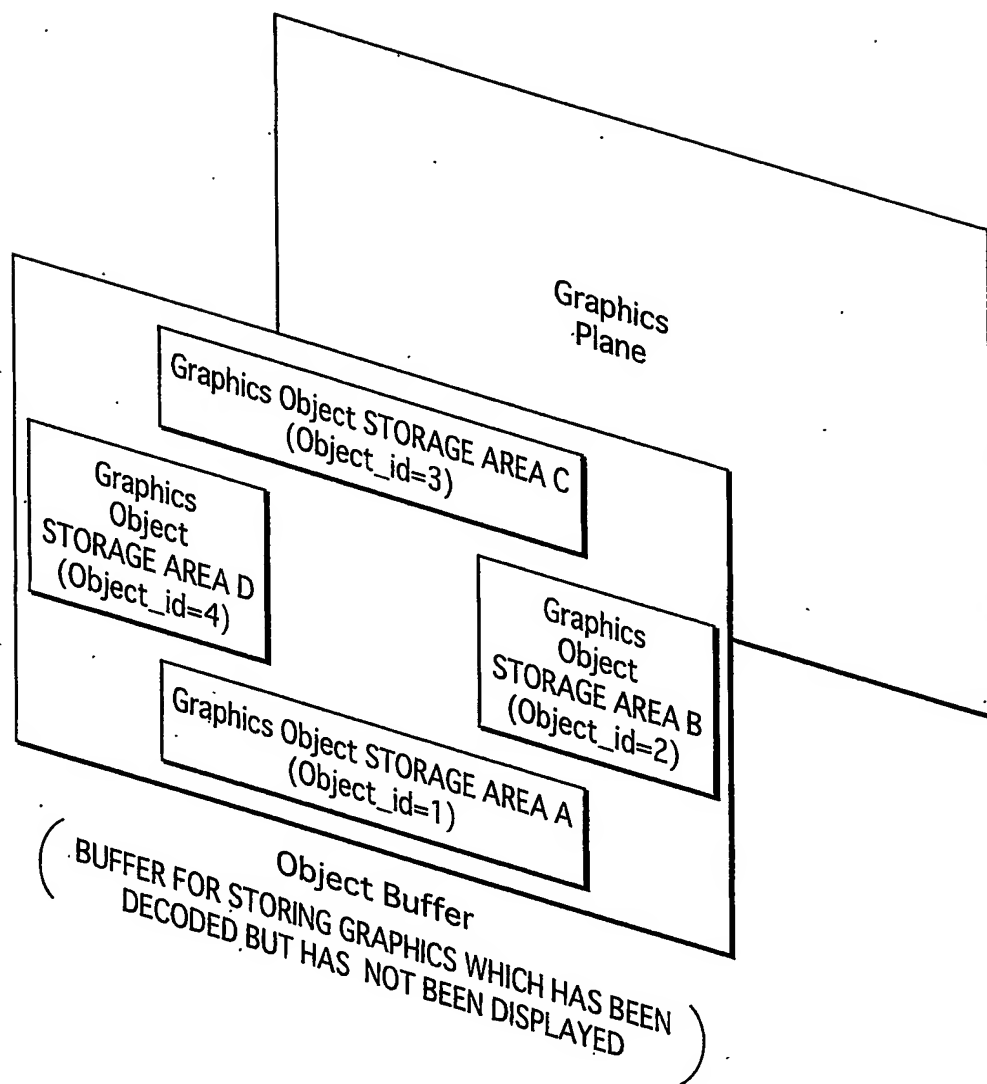


FIG. 14  $PTS( DS_n[PCS] ) \geq DTS( DS_n[PCS] ) + DECODEDURATION( DS_n )$

Where:

- $DECODEDURATION( DS_n )$  is calculated as follows:

```

decode_duration = 0 ;
decode_duration += PLANEINITIALIZATIONTIME( DS_n ) ;
if( DS_n.PCS.num_of_objects == 2 )
{
    decode_duration += WAIT( DS_n, DS_n.PCS.OBJ[0], decode_duration ) ;
    if( DS_n.PCS.OBJ[0].window_id == DS_n.PCS.OBJ[1].window_id )
    {
        decode_duration += WAIT( DS_n, DS_n.PCS.OBJ[1], decode_duration ) ;
        decode_duration += 90000*( SIZE( DS_n.PCS.OBJ[0].window_id )//256*106 ) ;
    }
    else
    {
        decode_duration += 90000*( SIZE( DS_n.PCS.OBJ[0].window_id )//256*106 ) ;
        decode_duration += WAIT( DS_n, DS_n.PCS.OBJ[1], decode_duration ) ;
        decode_duration += 90000*( SIZE( DS_n.PCS.OBJ[1].window_id )//256*106 ) ;
    }
}
else if( DS_n.PCS.num_of_objects == 1 )
{
    decode_duration += WAIT( DS_n, DS_n.PCS.OBJ[0], decode_duration ) ;
    decode_duration += 90000*( SIZE( DS_n.PCS.OBJ[0].window_id )//256*106 ) ;
}
return decode_duration ;

```

- $PLANEINITIALIZATIONTIME( DS_n )$  is calculated as follows:

```

initialize_duration=0 ;
if( DS_n.PCS.composition_state== EPOCH_START )
{
    initialize_duration = 90000*( 8*video_width*video_height//256*106 ) ;
}
else
{
    for( i=0 ; i < WDS.num_windows ; i++ )
    {
        if( EMPTY(DS_n.WDS.WIN[i],DS_n ) )
            initialize_duration += 90000*( SIZE( DS_n.WDS.WIN[i] )//256*106 ) ;
    }
}
return initialize_duration ;

```

- $WAIT( DS_n, OBJ, current\_duration )$  is calculated as follows:

```

wait_duration = 0 ;
if( EXISTS( OBJ.object_id, DS_n ) )
{
    object_definition_ready_time = PTS( GET( OBJ.object_id, DS_n ) ) ;
    current_time = DTS( DS_n.PCS )+current_duration ;
    if( current_time < object_definition_ready_time )
        wait_duration += object_definition_ready_time - current_time ;
}
return wait_duration ;

```

FIG. 15

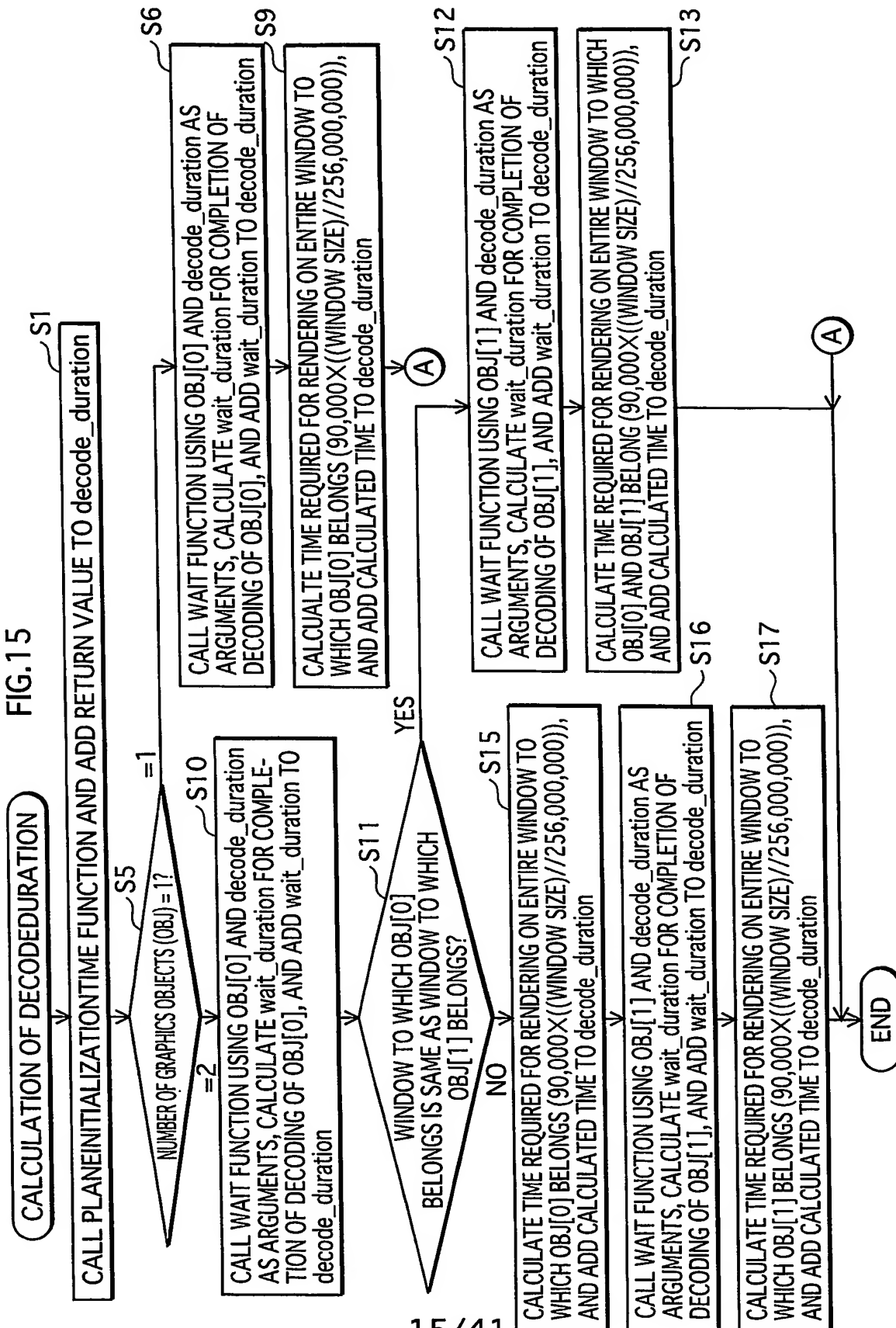


FIG.1 6A

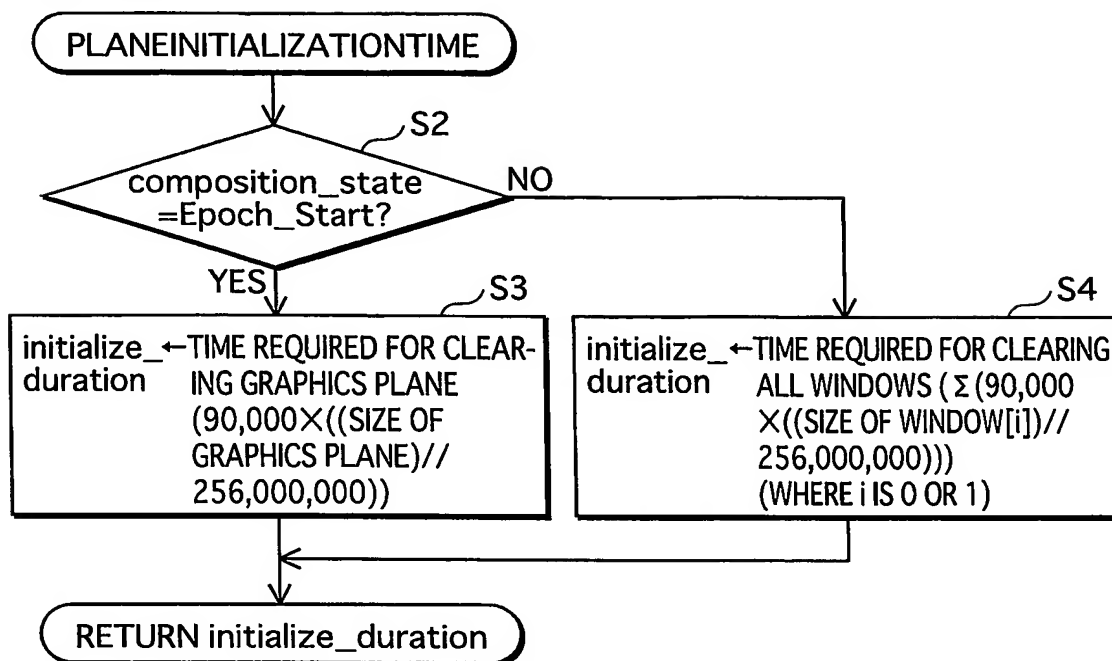


FIG.1 6B

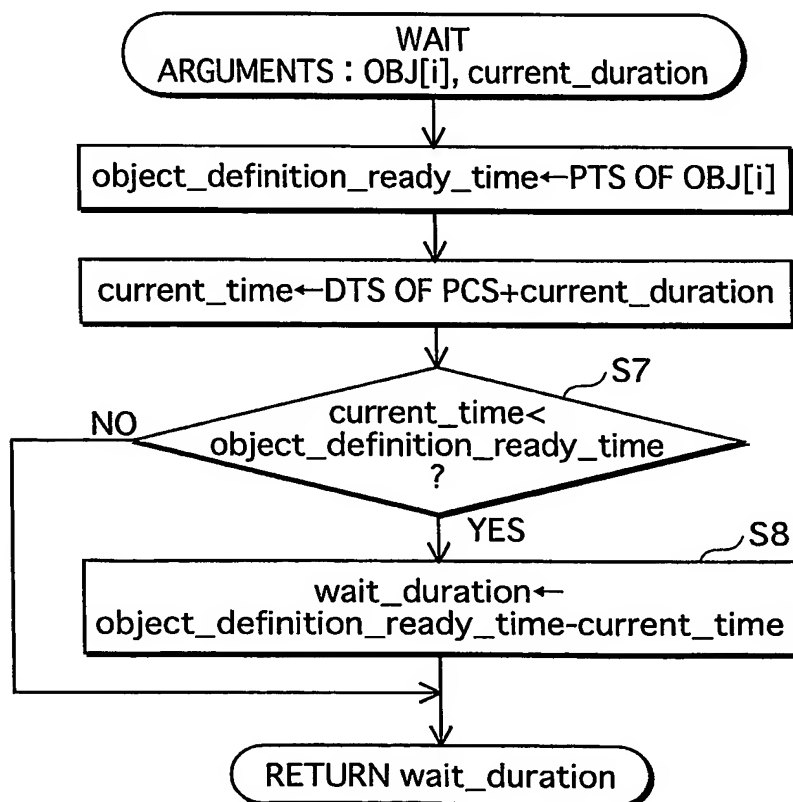




FIG.17A

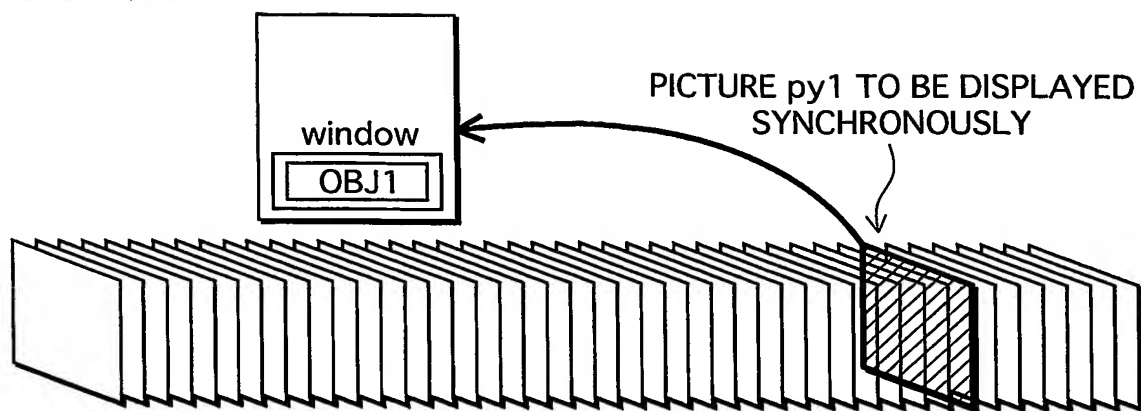


FIG.17B

DECODE\_DURATION  
=(2)+(3)

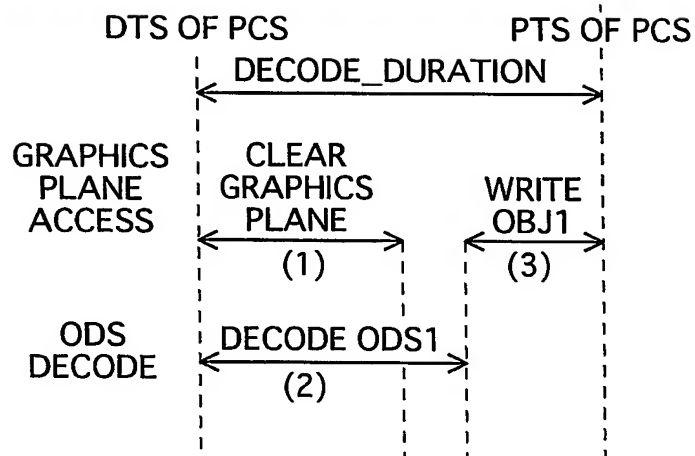


FIG.17C

DECODE\_DURATION  
=(1)+(3)

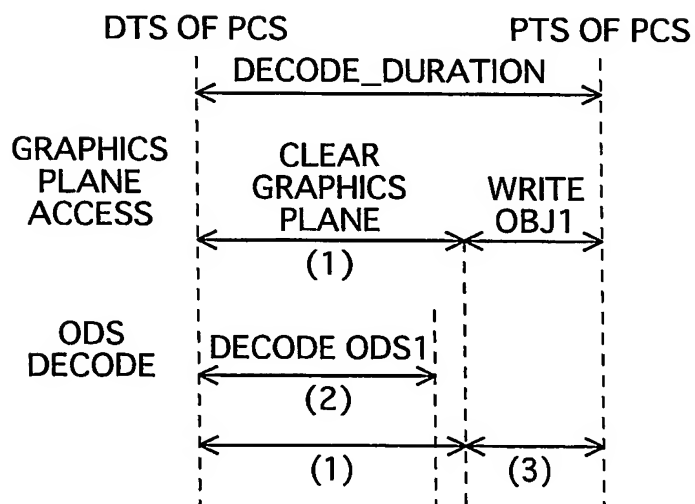


FIG.18A

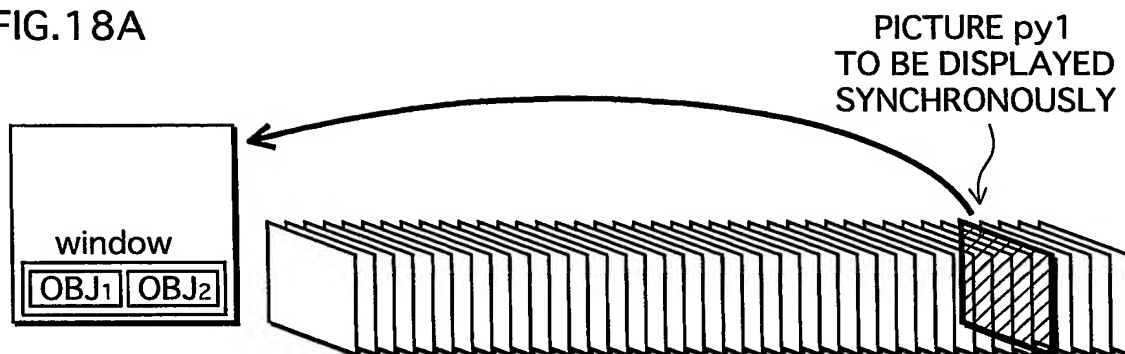


FIG.18B

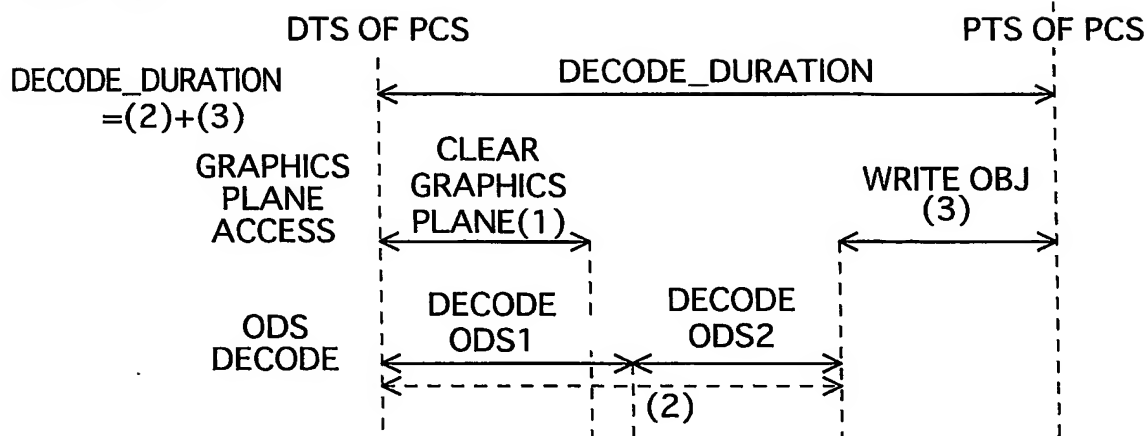
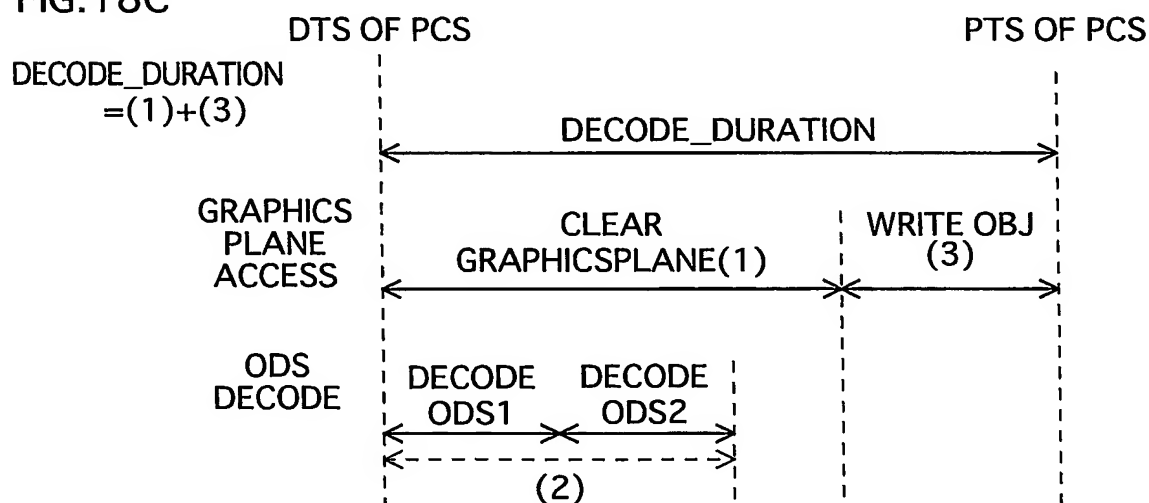
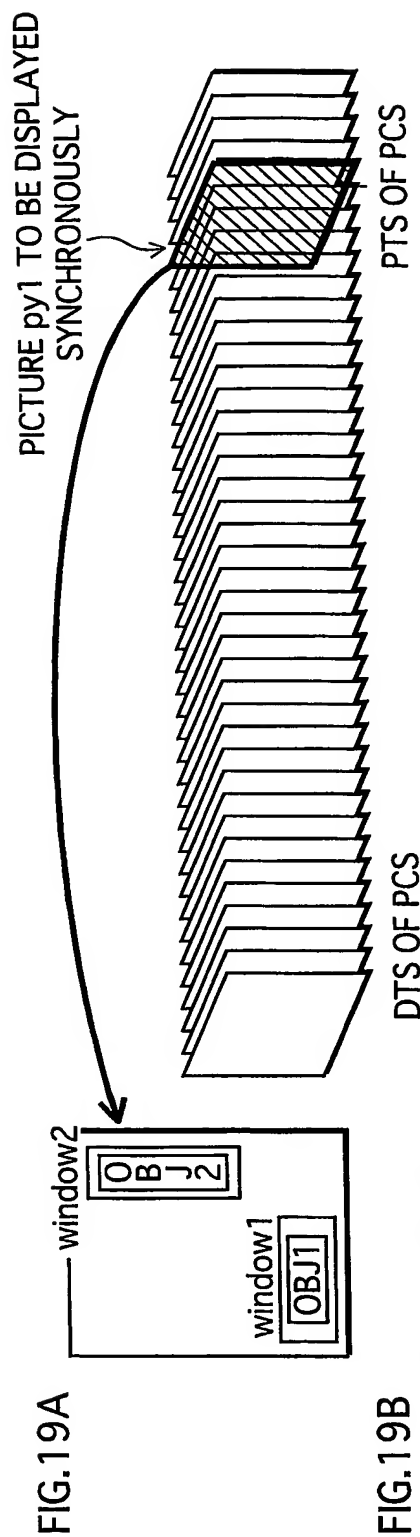


FIG.18C





$$\text{DECODE\_DURATION} = (2) + (32)$$

FIG.19B

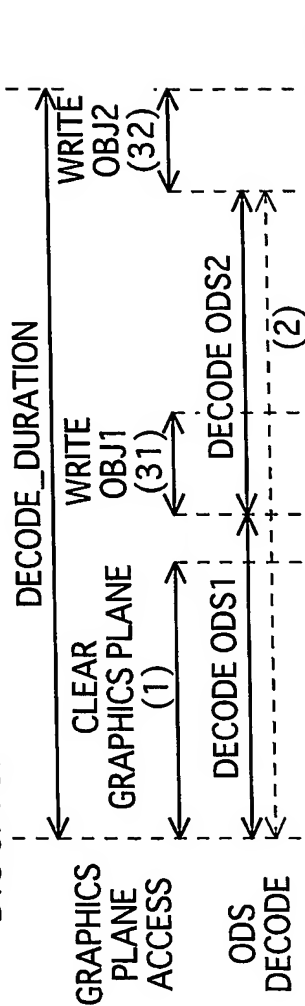


FIG.19C

$$\text{DECODE\_DURATION} = (1) + (31) + (32)$$

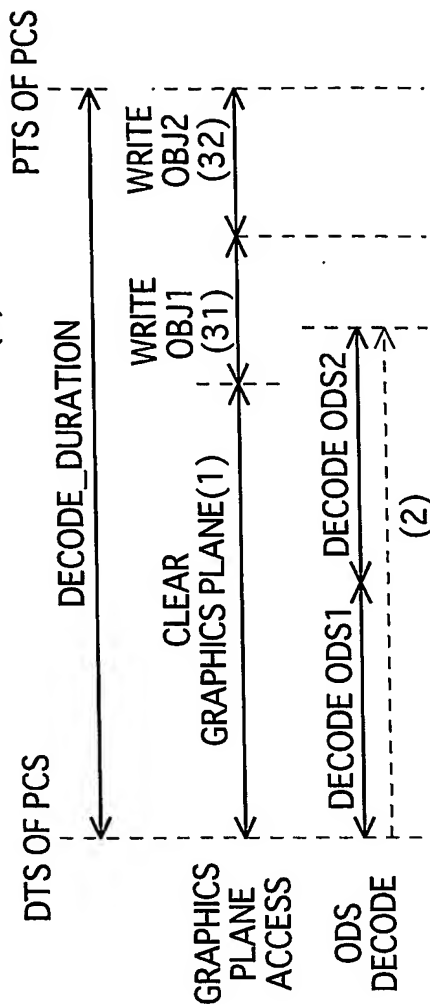


FIG.20

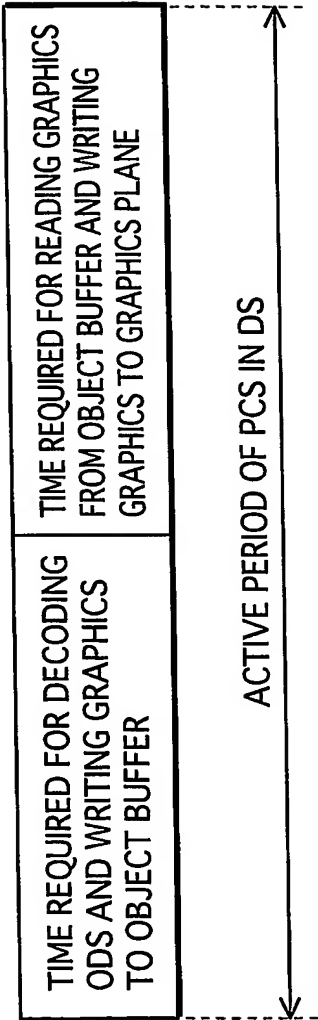


FIG.21

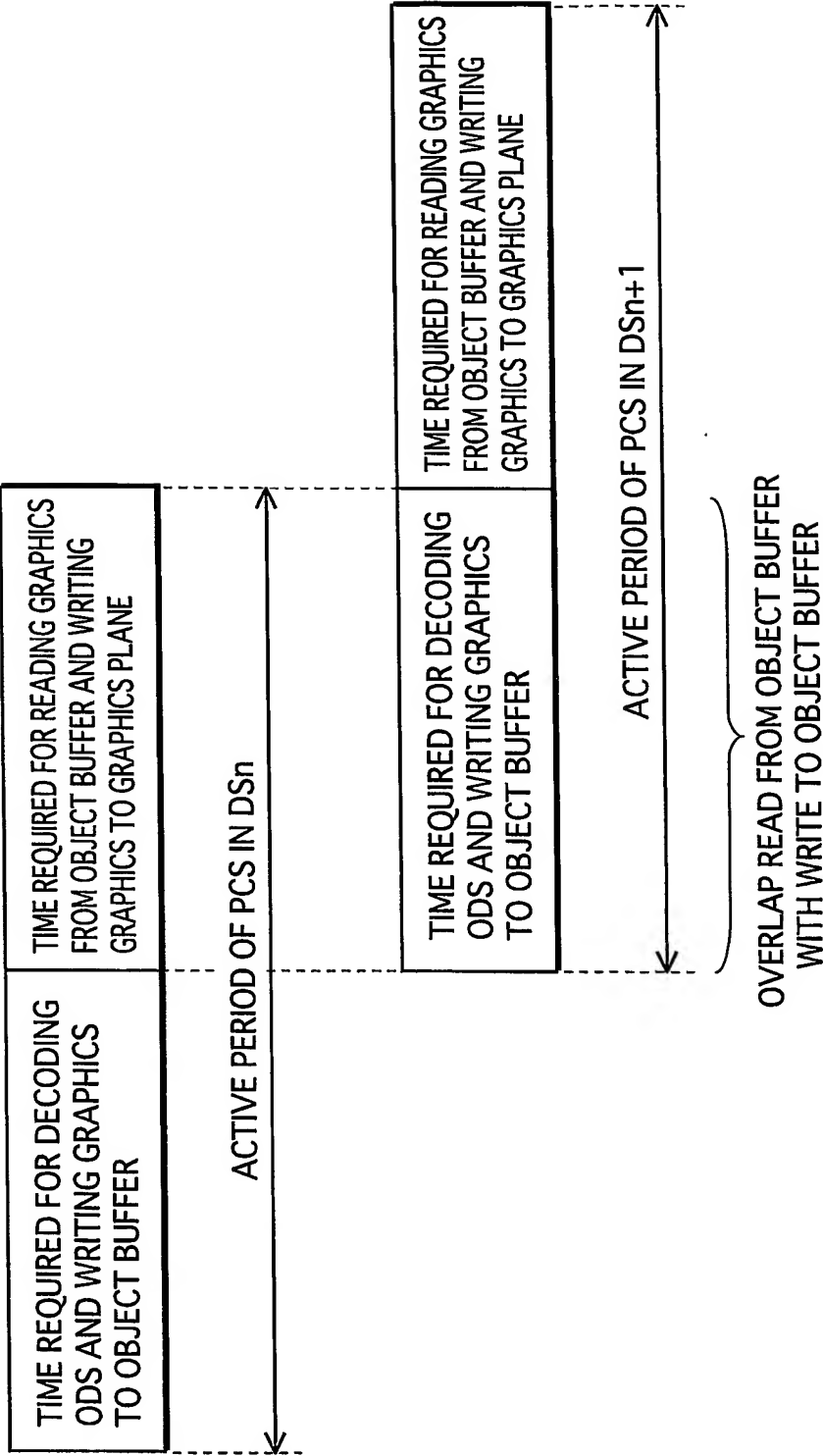


FIG.22

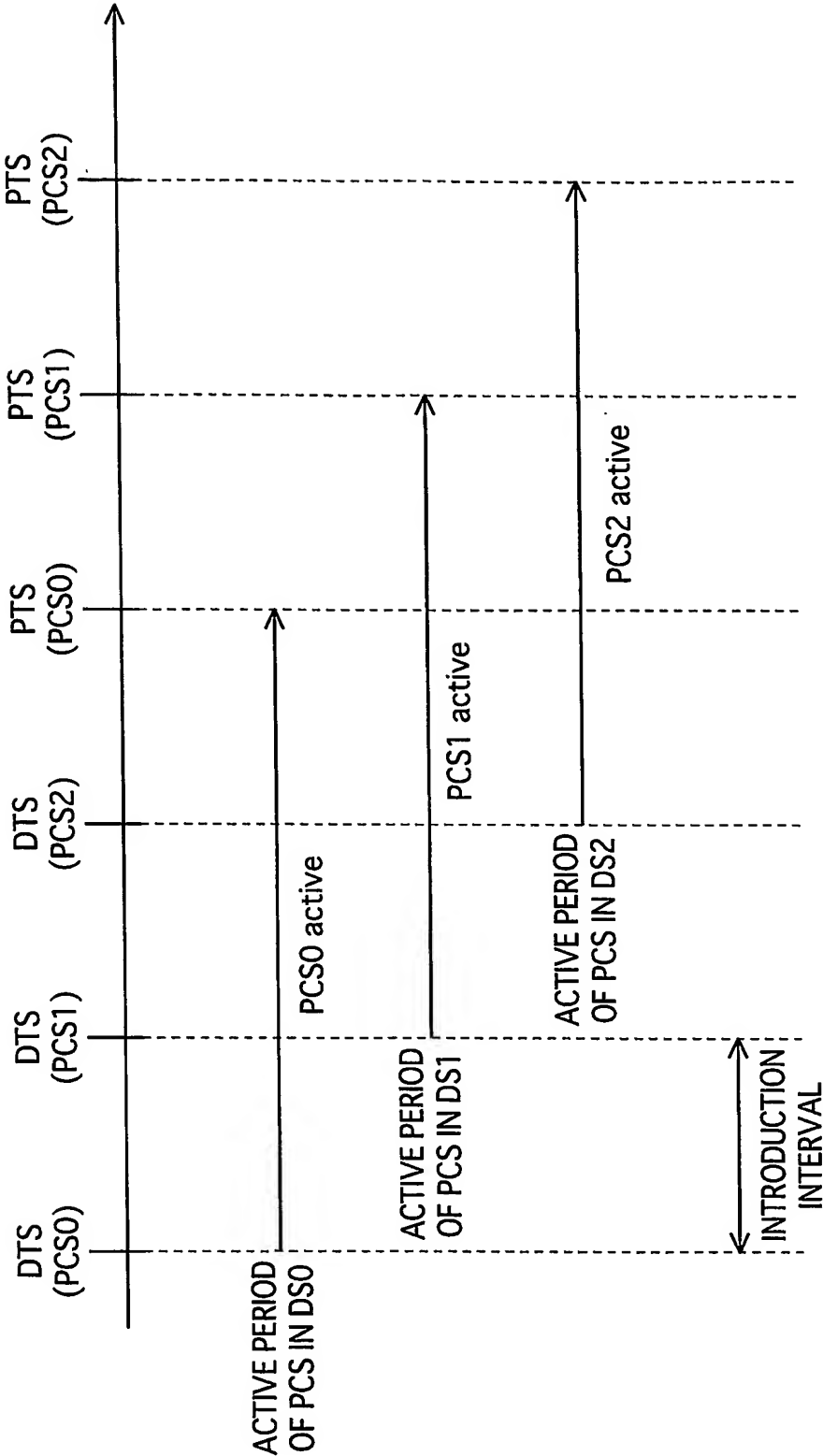


FIG. 23

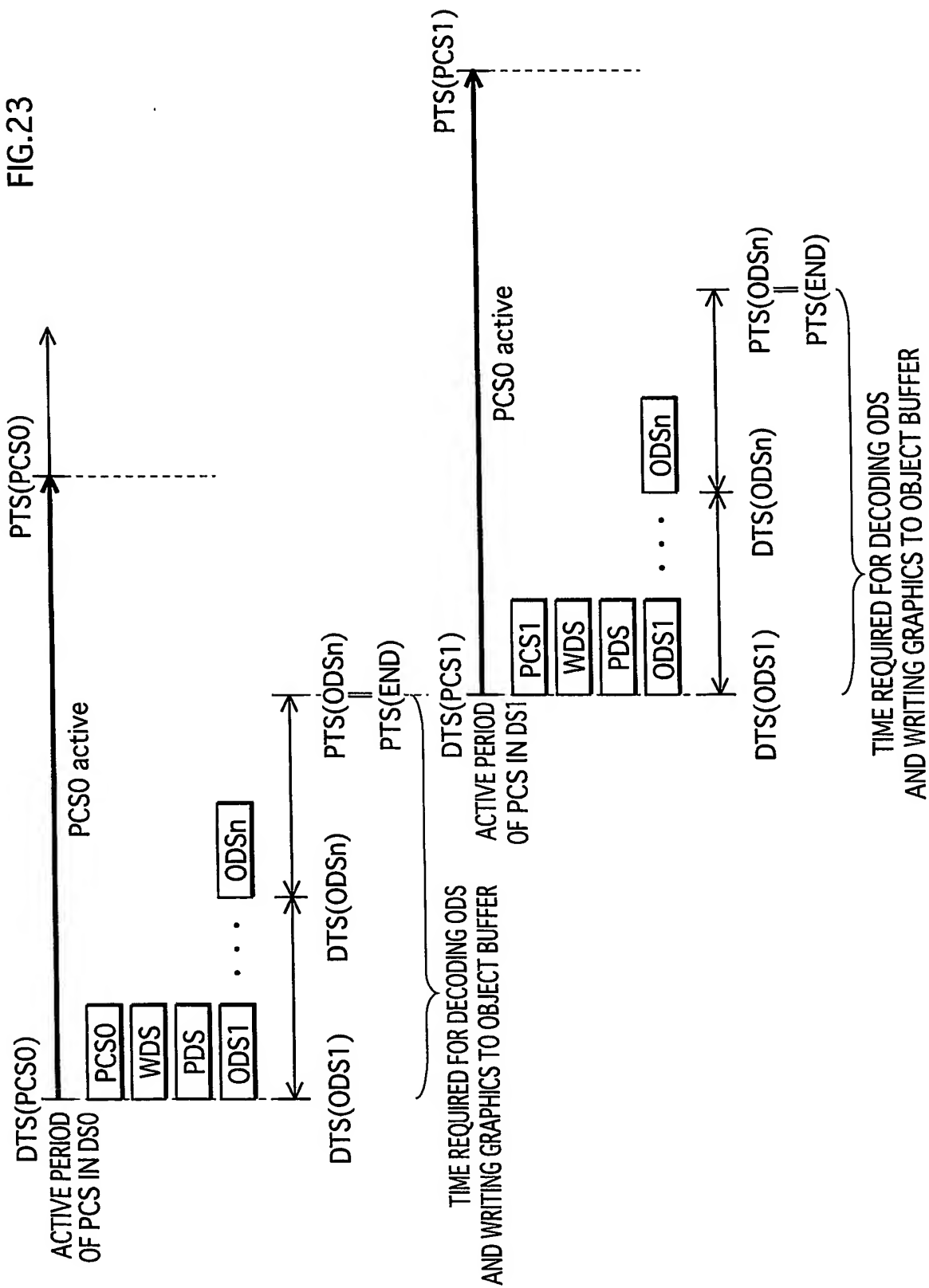


FIG.24

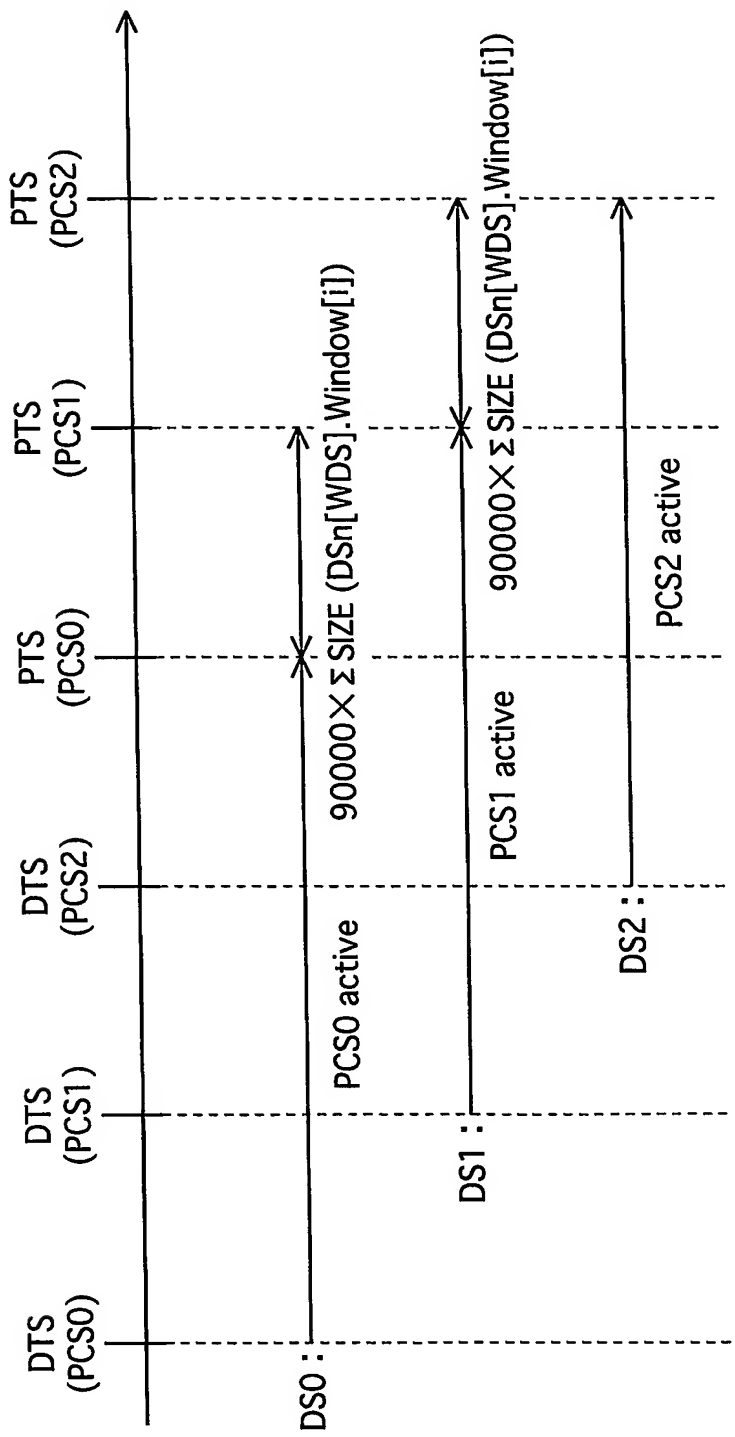
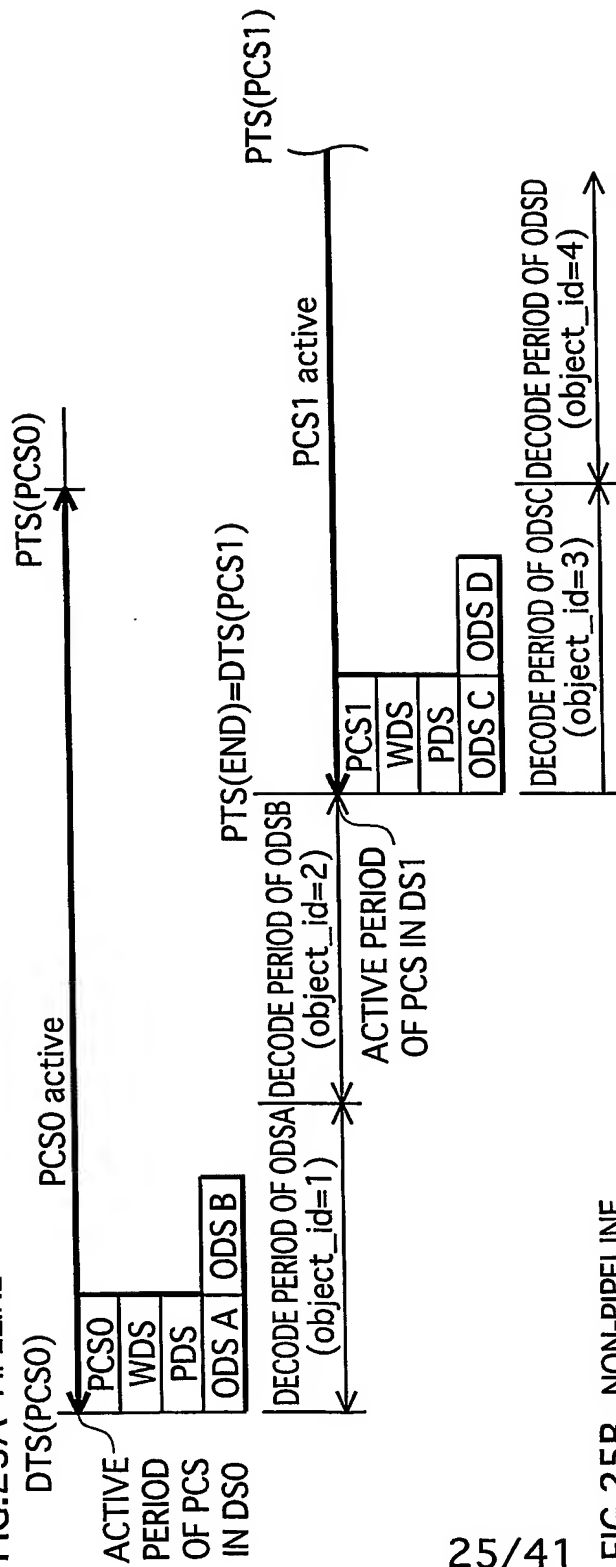




FIG.25A PIPELINE



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FIG.25B NON-PIPELINE

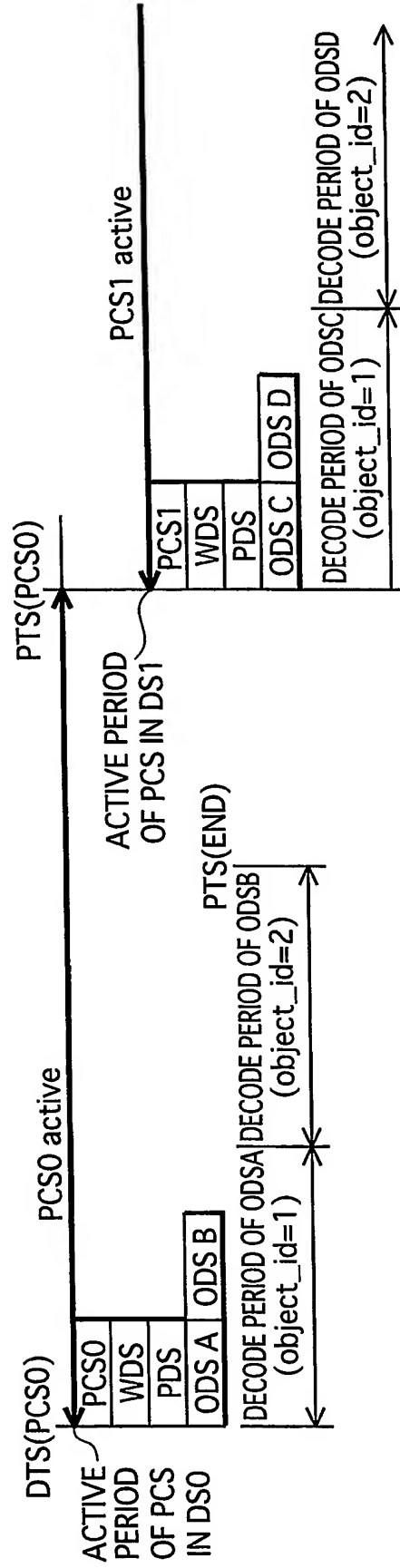


FIG.26

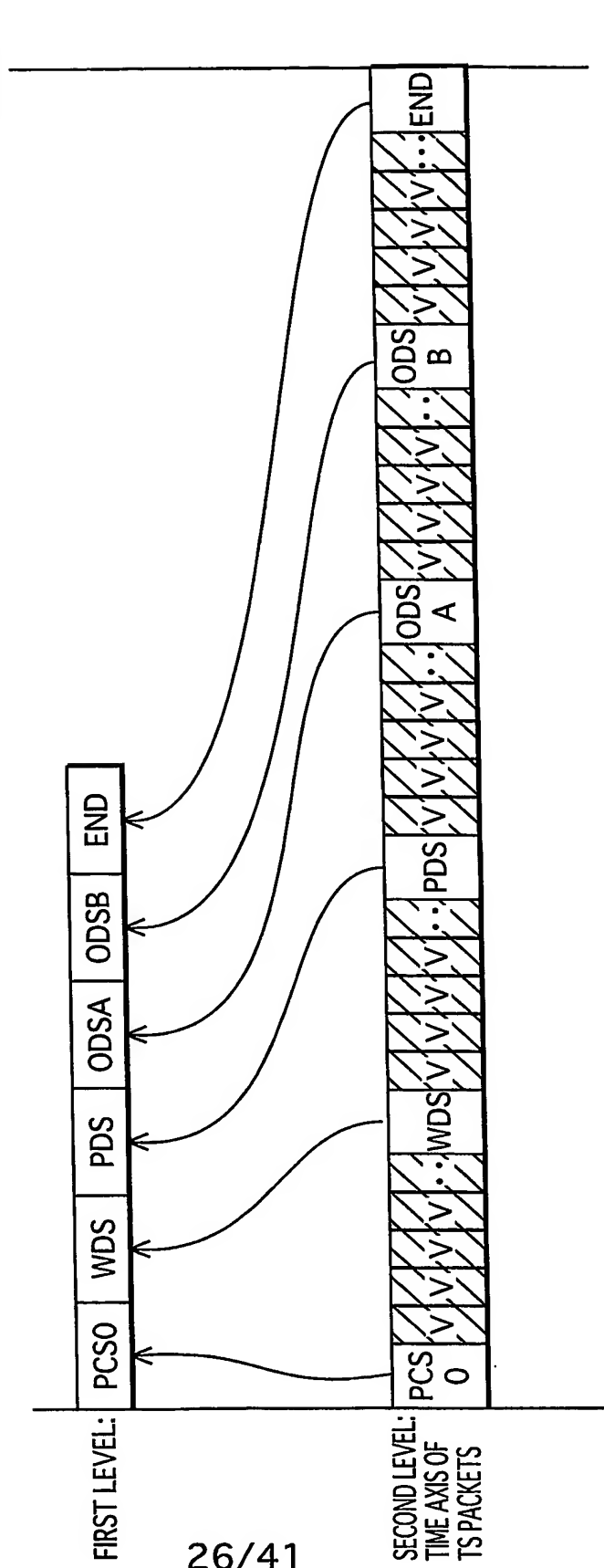


FIG.27A SCREEN COMPOSITION

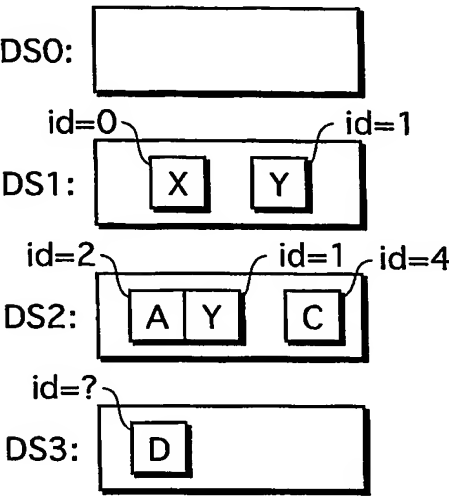


FIG.27B ACTIVE PERIOD OVERLAPPING AND ODS TRANSFER

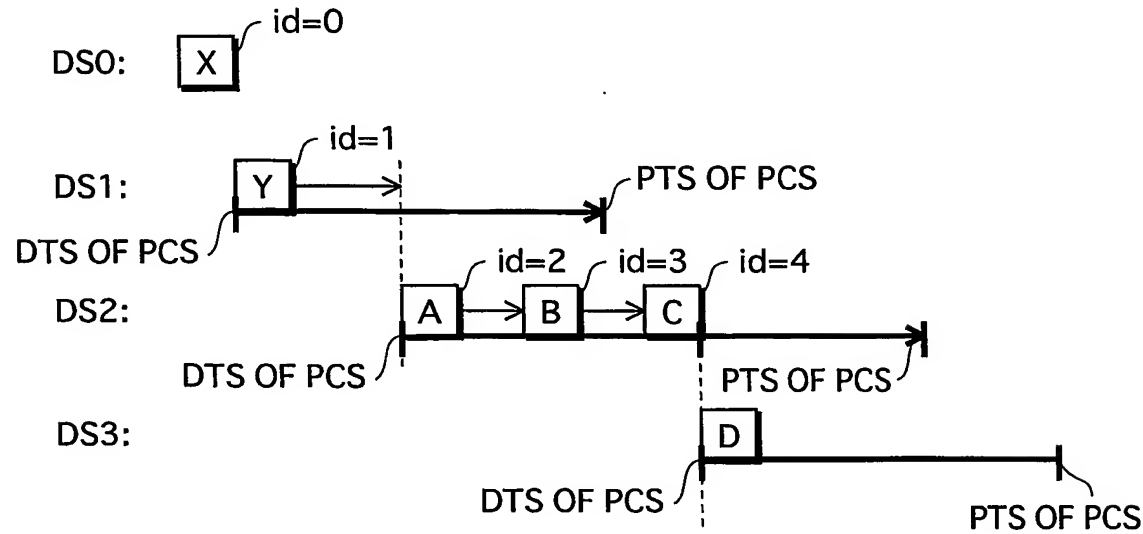


FIG.27C ARRANGEMENT IN OBJECT BUFFER

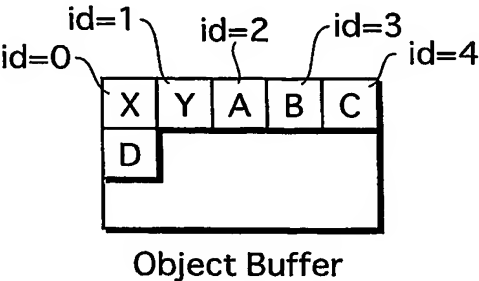


FIG.28

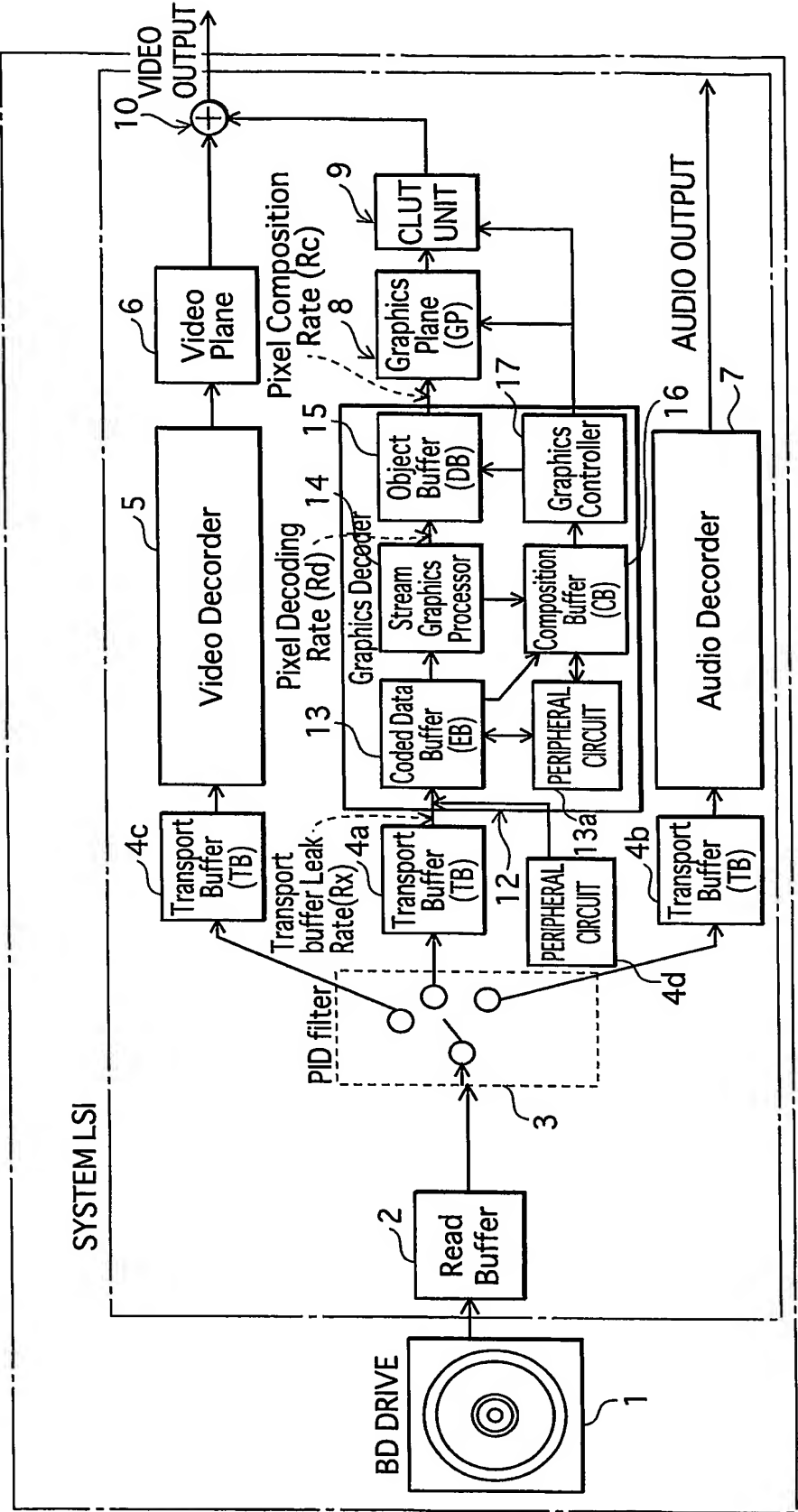
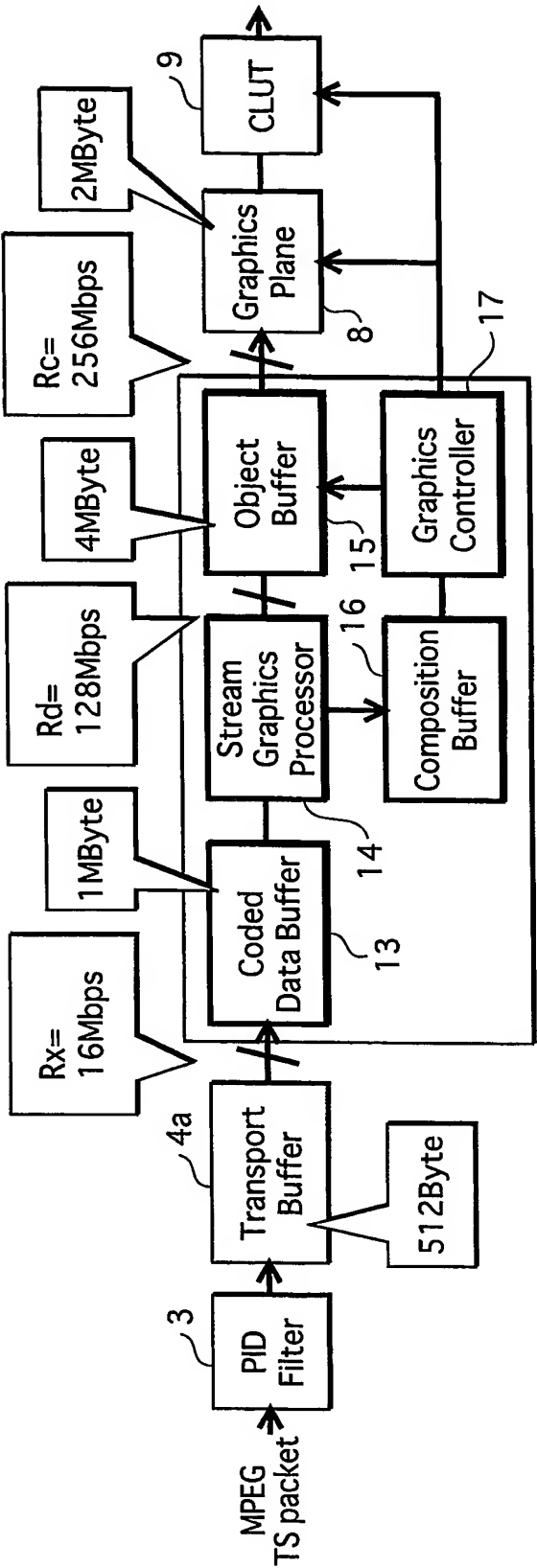
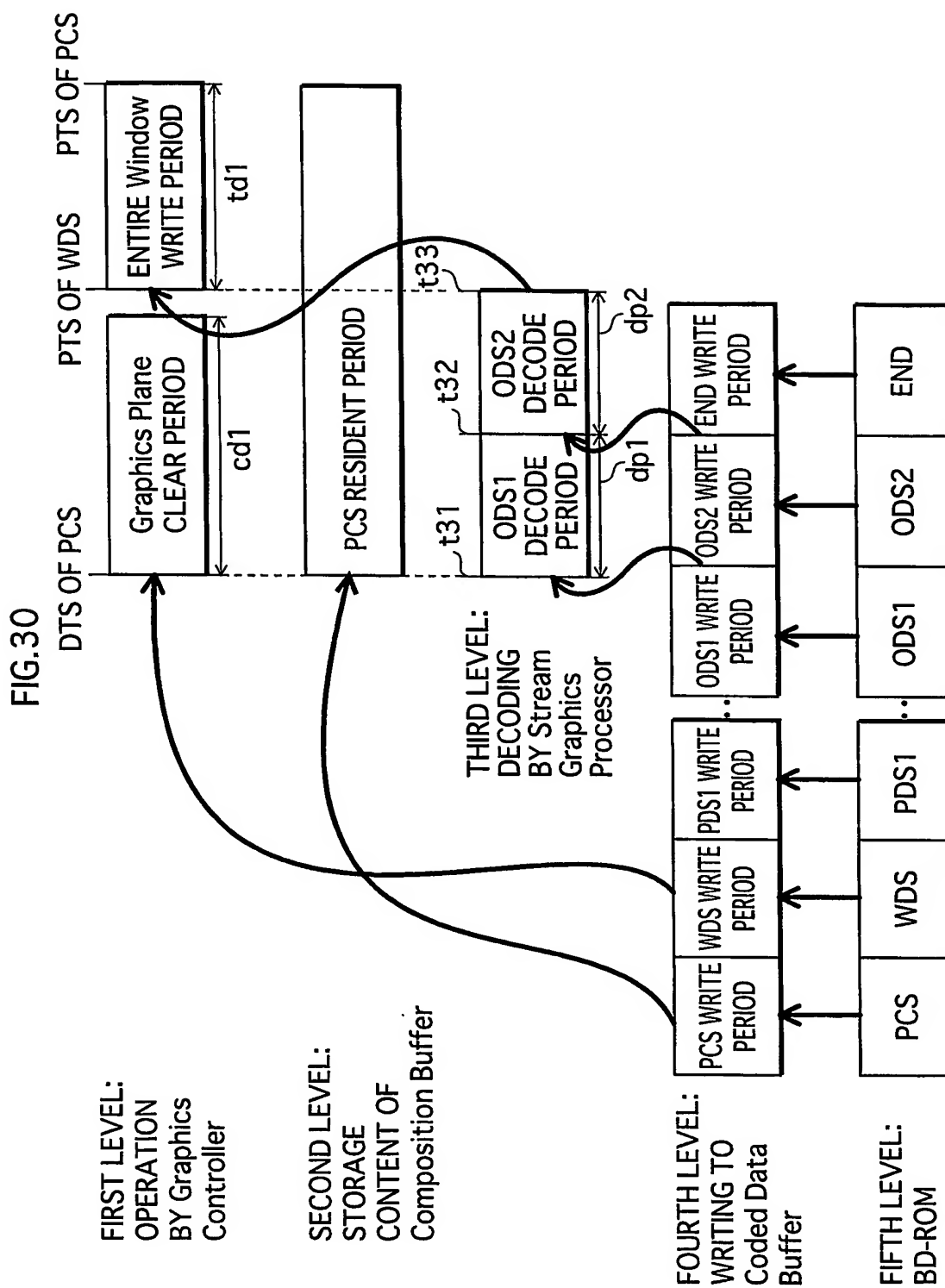
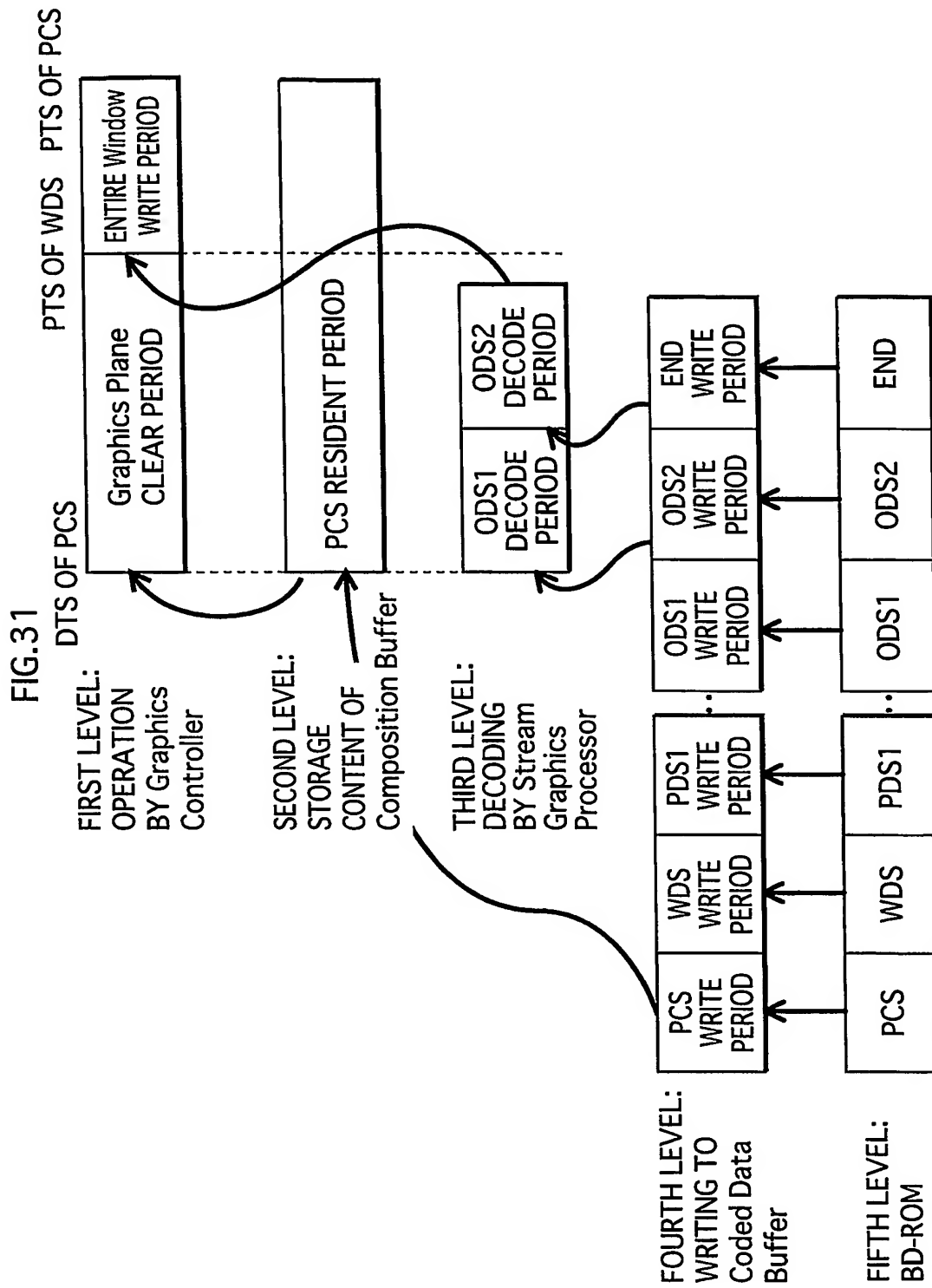


FIG.29







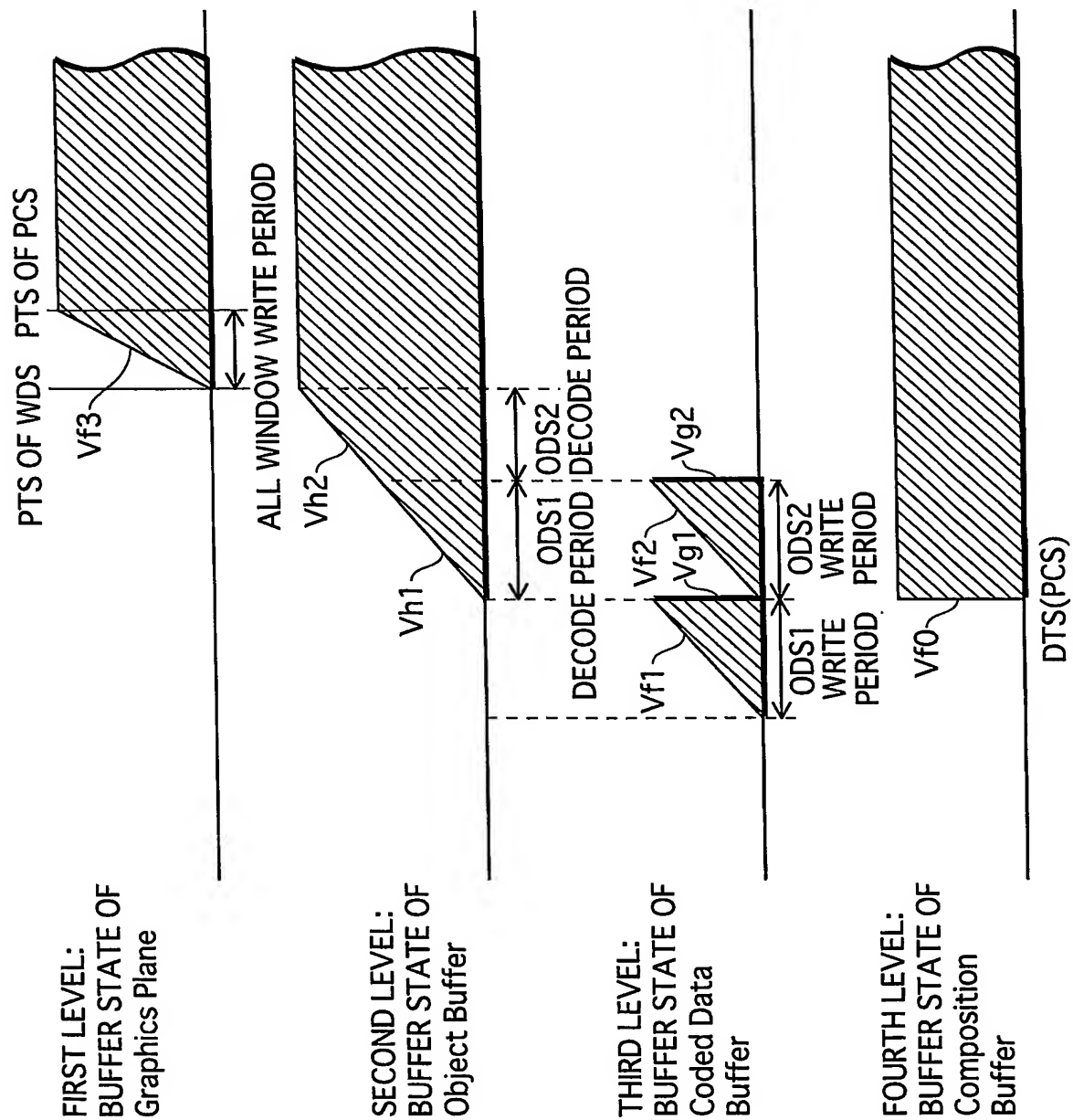


FIG.32





FIG.34

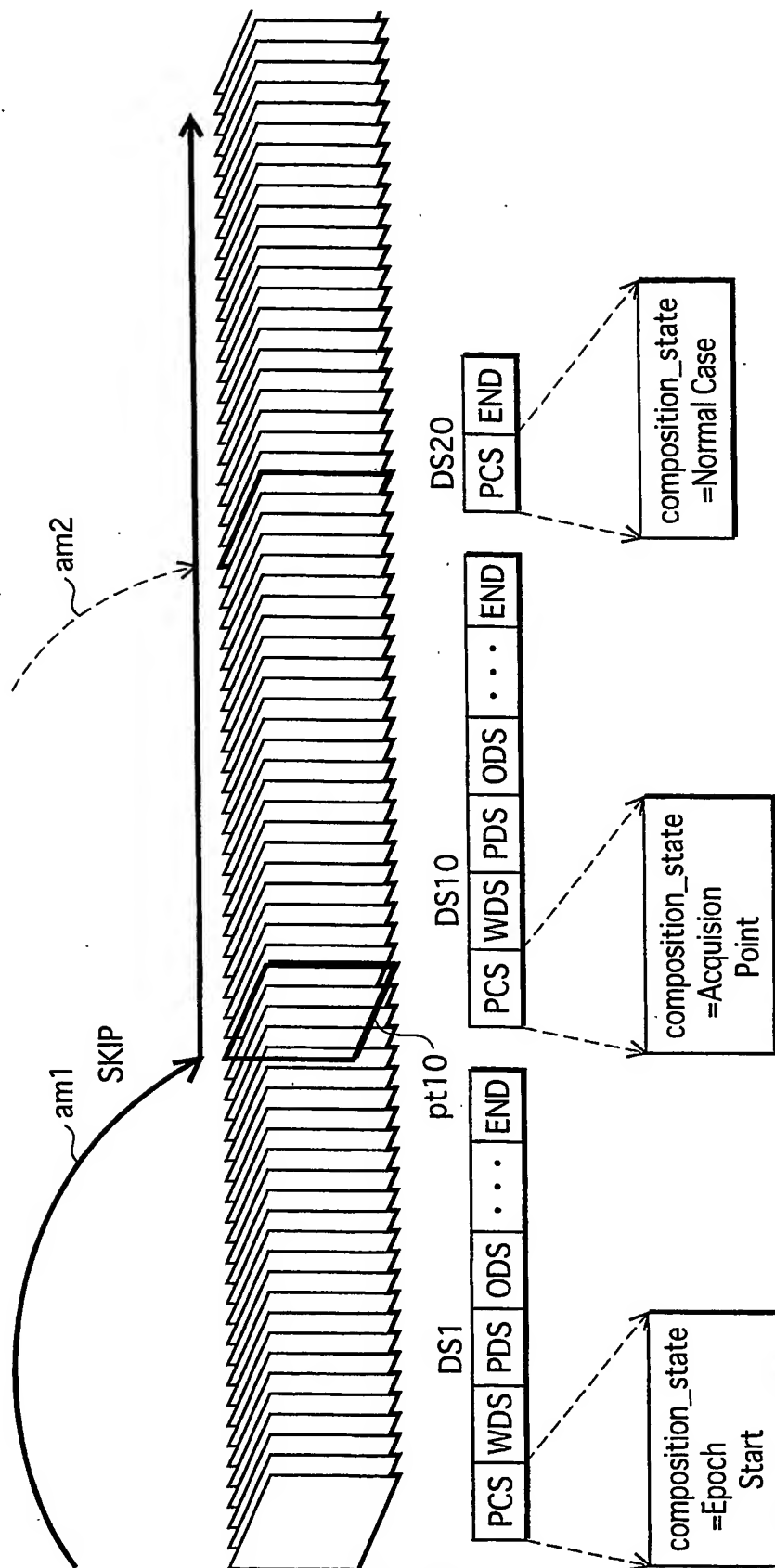


FIG.35

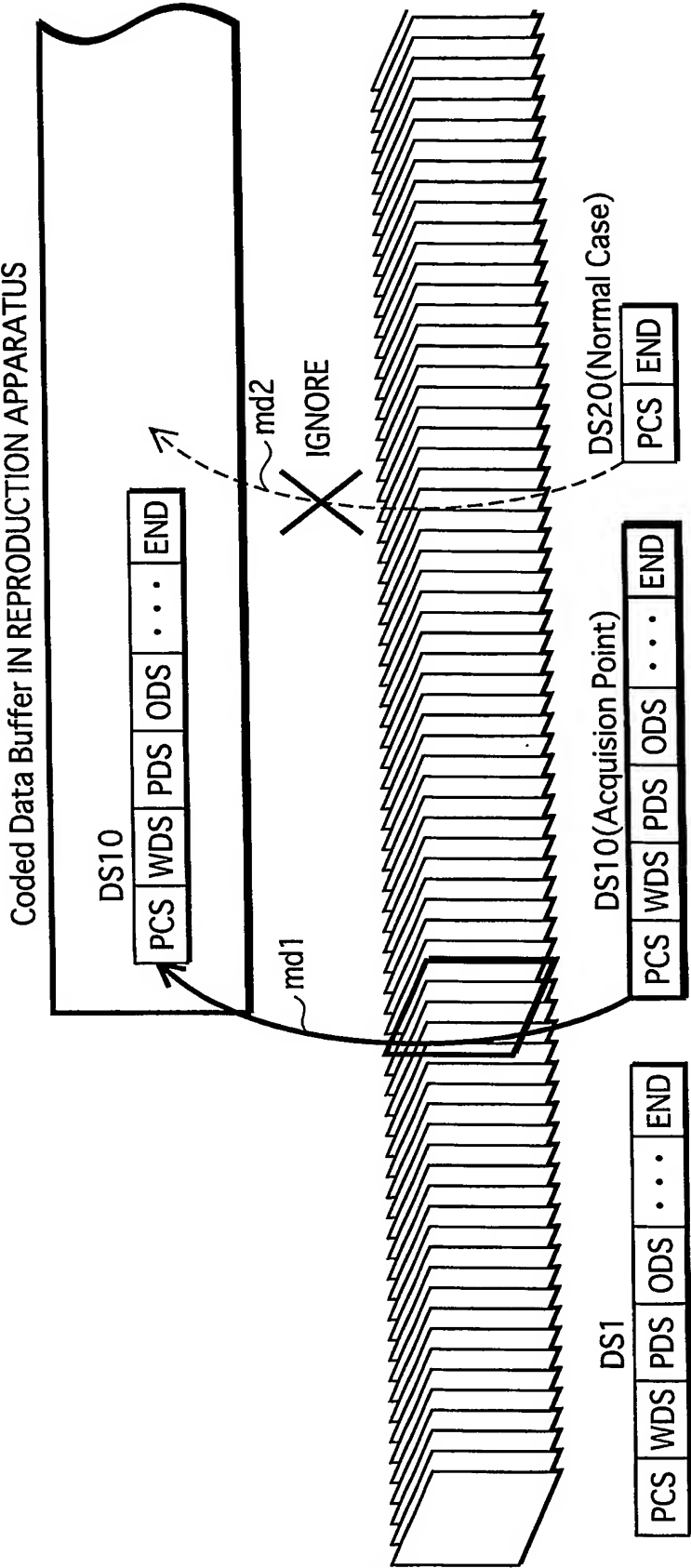


FIG.36

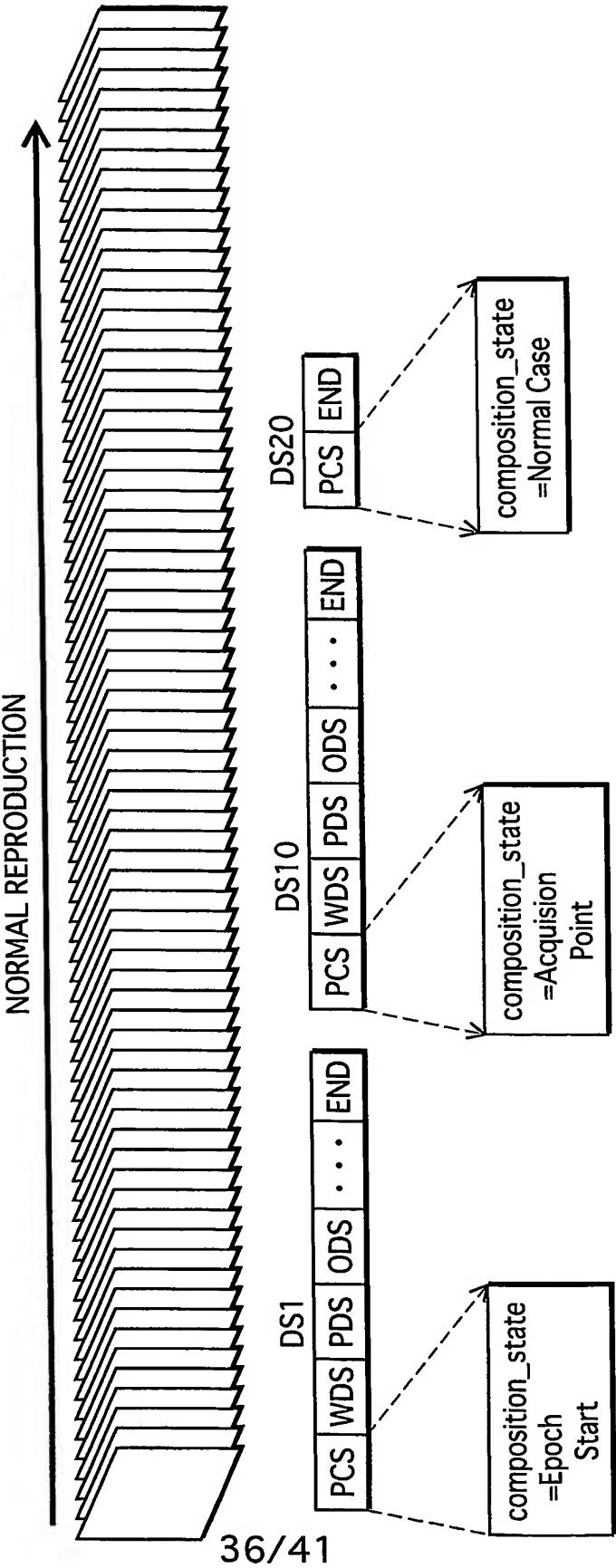


FIG.37

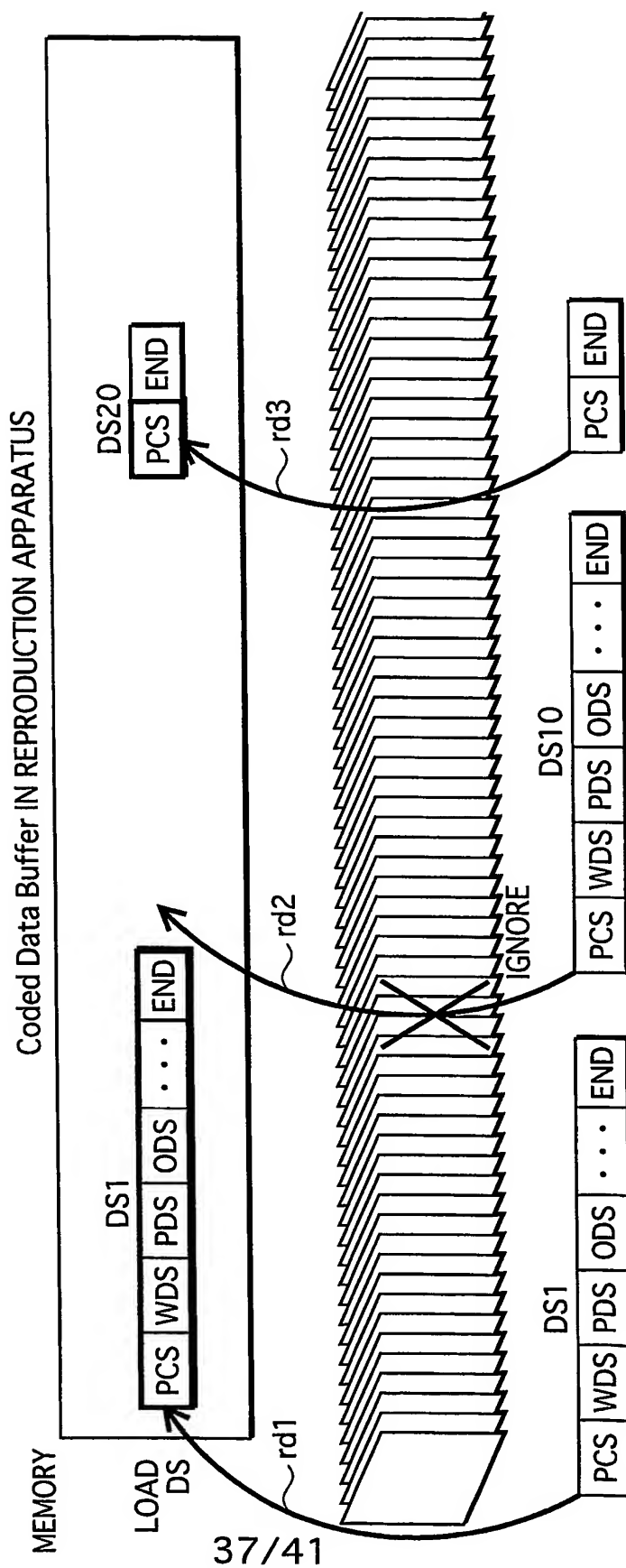


FIG.38

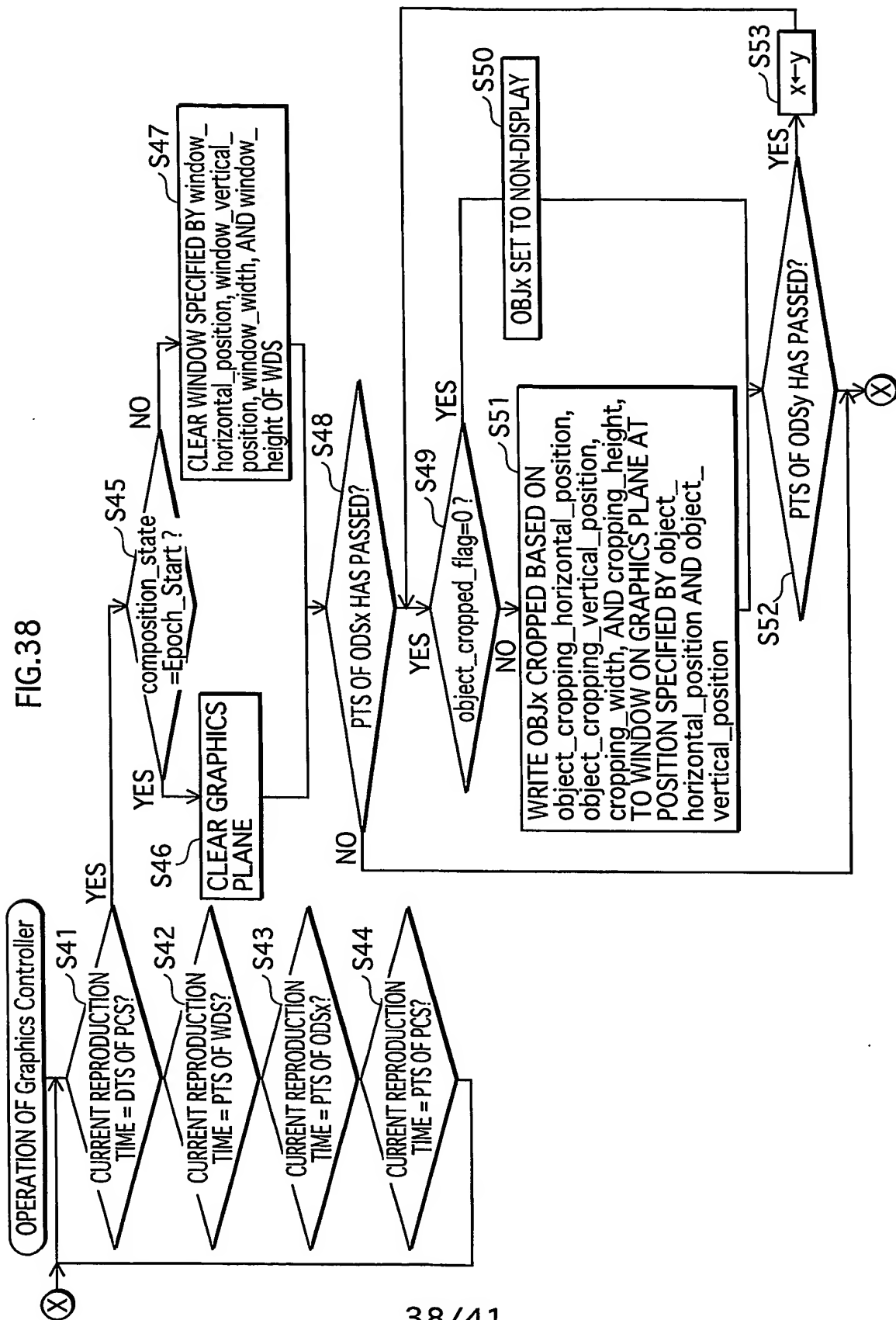


FIG.39

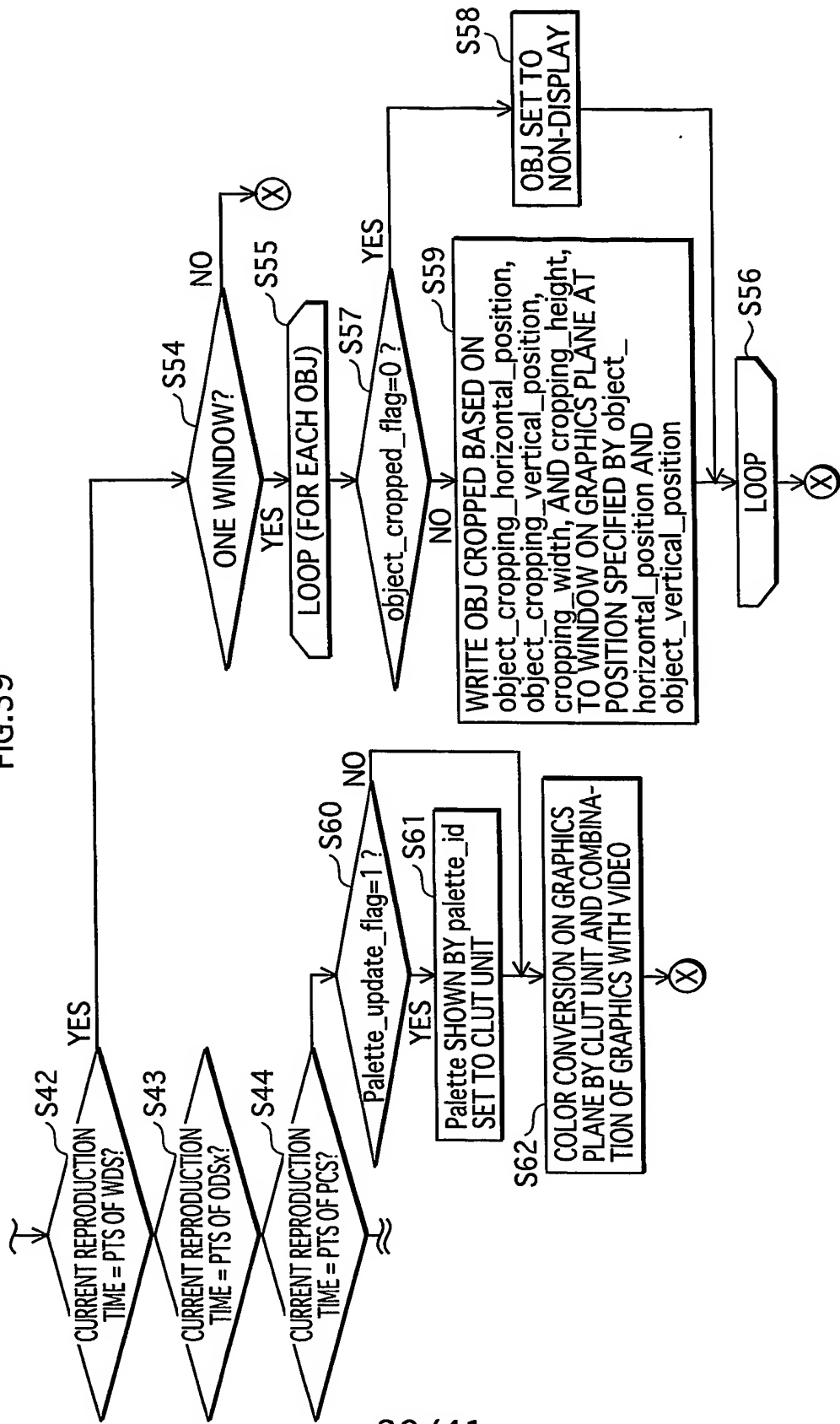


FIG.40

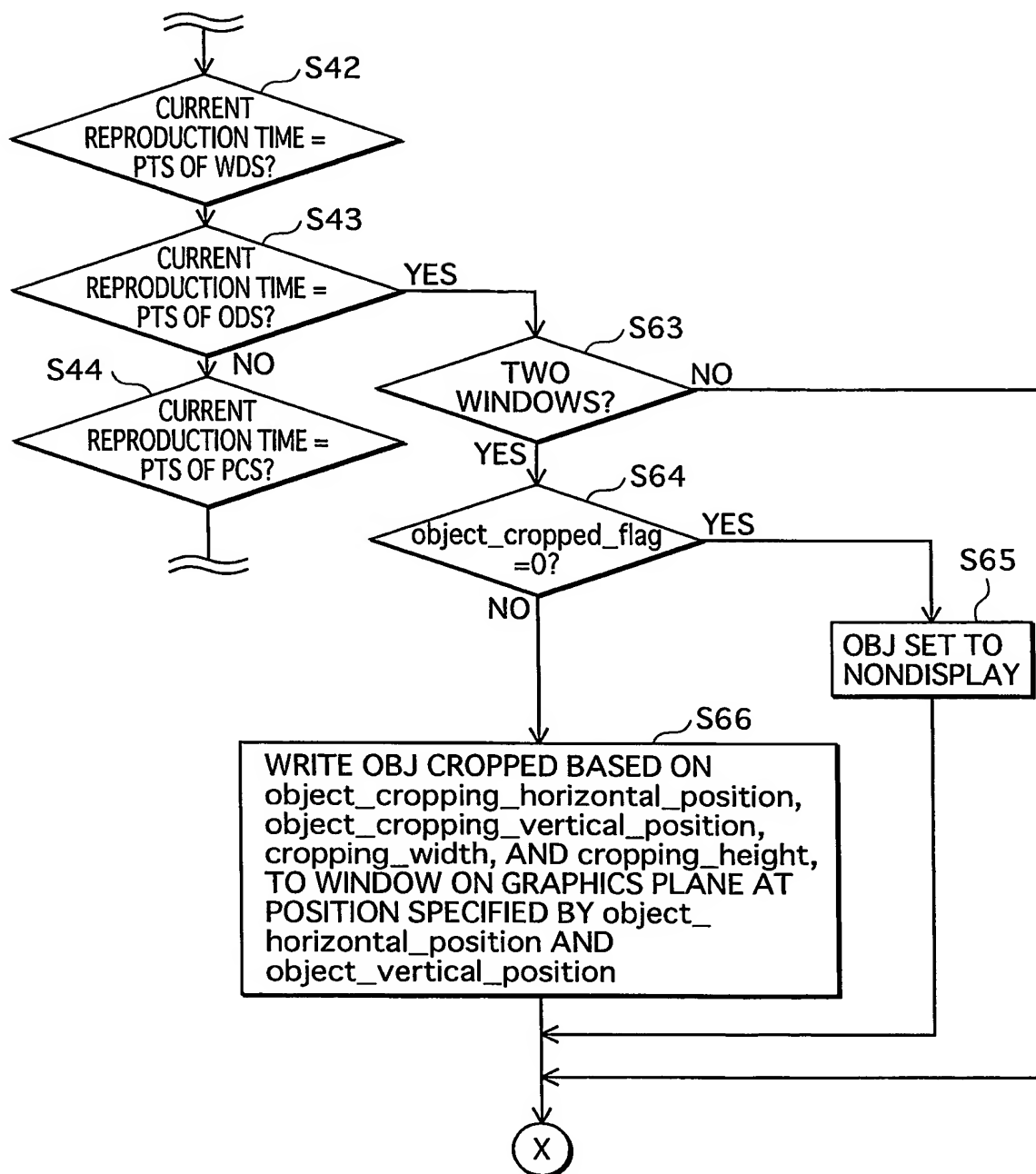




FIG. 41

